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ABSTRACT

This, the second of three annual reports by the Ontario Institute for Studies in Education (OISE), continues to track central policy and developments in the implementation of the British National Literacy and Numeracy Strategies (NLS and NNS). The report considers value for money in their funding and on the perception and experience of the Strategies in schools. Six notable areas of the Strategies success have been identified: (1) Breadth of influence on teaching and learning; (2) Adaptation within a clear vision; (3) Value for Money; (4) Institutionalisation of a national infrastructure; (5) Policy coherence; and (6) Balancing pressure and support. The proportion of students achieving the expected levels on Key Stage 2 national assessments remains the most visible public indicator of the success of the Strategies, although considerable other relevant data is available and increasingly used. The question of sustainability has emerged throughout the evidence--how to embed the reforms so that improvement continues when NLS and NNS are no longer the center of the educational agenda. England is in a period of massive renewal of the teaching profession. The next phase of NLS and NNS reform is crucial because it involves first, deepening the teaching practices in classrooms and schools, second, ensuring that other areas of the curriculum are progressing apace and, third, attending to what are called the generic aspects of the broader structure of the profession. (Contains 63 references.) (NKA)

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Second Annual Report

# Watching & Learning 2

## OISE/UT Evaluation of the Implementation of the National Literacy and Numeracy Strategies

Lorna Earl, Ben Levin, Ken Leithwood, Michael Fullan, Nancy Watson
With Nancy Torrance, Doris Jantzi, and Blair Mascall

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# Acknowledgements

In this, the second of three annual reports we will submit in the course of our external evaluation of the National Literacy and Numeracy Strategies, we welcome the opportunity to again express our great appreciation to all those in England who have made our work both possible and highly enjoyable.

The co-operation from Michael Barber, Judy Sebba, Tony Martin, Matthew Young and Dave Sleep (all DfES) has been unstinting, as has the support from the National and Regional Directors of NLS and NNS and their colleagues at the National Centre for Literacy and Numeracy in Reading. We thank all these people for their invaluable assistance and for allowing us to draw on their expertise. We especially would like to thank John Stannard and Anita Straker, National Directors of the Literacy and Numeracy Strategies respectively, both of whom have now moved on, John to retirement and Anita to direct the Key Stage 3 initiative. We extend good wishes to both – we will miss their unfailing good humour, sharp insights and quick repartee.

In this report, we express particular thanks to the headteachers, teachers and other staff members in the ten quite different schools we have visited over the year. These colleagues, right across England, have welcomed us into their schools and classrooms and shared their experiences, their triumphs and their struggles. We appreciate their trust. We also thank the Literacy and Numeracy staff in the ten LEAs associated with these schools; together those in schools and in LEAs have helped deepen our understanding of the Strategies at the local level. Although they remain anonymous, they know who they are and how much we appreciate them.

All these people have taken time from their busy schedules for conversations and interviews with us – they have welcomed us to classrooms, training sessions, meetings and conferences, as well as responding cheerfully and promptly to our steady requests for information. They have put themselves out to facilitate our work in a myriad of ways – we greatly appreciate their support and their insights.

Many headteachers and teachers responded anonymously to our mailed surveys. We very

much appreciate the time that all these people took to do this. Their opinions proved extremely valuable for our efforts.

The photographs in our report have been provided by the National Numeracy Strategy and the National Literacy Strategy. We thank both Strategies for kindly granting us permission to use the photographs.

The responsibility for limitations and errors in our work is ours alone.

# Executive Summary

## Context

The National Literacy and Numeracy Strategies (NLS and NNS), integral to the British government's major reform of education, are aimed at improving classroom practice and pupil learning in literacy and mathematics in primary schools across England. The Strategies are comprehensive in design and execution, pulling together various policy strands to provide clear direction and support for change. They represent a highly ambitious professional learning programme, involving virtually all primary schools over several years.

The Standards and Effectiveness Unit (SEU) of the Department for Education and Skills (DfES) has commissioned a team of researchers from the Ontario Institute for Studies in Education of the University of Toronto (OISE/UT) to provide an external evaluation of the implementation of the Strategies. This evaluation, now in its third year, supplements and complements the internal evaluation of NLS and NNS being carried out by the Office for Standards in Education (OFSTED).

The OISE/UT team acts as a *critical friend* to SEU and the national directorates for the Strategies, describing NLS and NNS from different perspectives, making connections with the international literature on large-scale reform and identifying issues for attention. As part of this process, the evaluation team tracks progress in the implementation of the Strategies at the national and local levels. We consider the consequences, intended and unintended, of decisions made in the implementation process and provide advice to DfES and the leaders of the Strategies.

## Evaluation Framework

Our external evaluation is guided by a framework for viewing large-scale reform developed during the first year of the evaluation. This framework highlights different aspects of large-scale reform efforts that appear to make a difference in altering school and classroom practice, both at the level of central policy levers and at the level of local challenges for implementation in schools and local authorities.

In our first annual report, we concluded that, in comparison with initiatives in other

jurisdictions, NLS and NNS were comprehensive and fully developed large-scale reform efforts. Each of the major factors that evidence suggests are important at the national policy level was being addressed, although with varying degrees of success. We also concluded that teachers were generally using the lesson and timing features of the Strategies, but would probably need further professional development and increasingly supportive work situations in order to develop the substantial new skills and knowledge necessary for long term sustainability of the Strategies. We concluded our report by summarising the successes to date and identifying the challenges we saw for the next phase of reform.

## Reflections After Year Two of the Evaluation (2000)

In the second year of the evaluation, we have continued to track central policy and implementation developments on the part of the DfES and the Strategies and have considered value for money in the funding of NLS and NNS. However, most of our data collection focused on the perception and experience of the Strategies in schools. We employed two methods – mailed surveys to two samples of 500 schools (one for literacy and one for numeracy) and case profiles being developed on the basis of site visits to 10 selected schools. These schools vary in size, location and type of community, as well as pupil performance on Key Stage 2 assessments.

After another year of implementation, we observed some notable successes of the Strategies. We also observed, paradoxically, how further challenges are now often embedded in success. We recognise that the gains to date have been impressive, but there is still some distance to go if deep, lasting reform is the criterion. As critical friends, we raise questions and dilemmas with respect to the next phase of reform.

## Successes

NLS and NNS are having an impressive degree of success, especially given the magnitude of the intended change. We have identified six notable areas of success.

### BREADTH OF INFLUENCE ON TEACHING AND LEARNING

The Strategies have influenced virtually all schools in England, moving literacy and numeracy to top priority in classrooms across the country. Observance of the Strategies and dedication of time to literacy and numeracy seems well established, with most teachers using the format and timing of the literacy hour and the three-part daily mathematics lesson, although often somewhat modified. The general perception is that it is probable that the 2002 targets will be met. Both teachers and headteachers believe that the Strategies are influencing pupil learning, although not to the extent that increases in test scores would suggest.

### ADAPTATION WITHIN A CLEAR VISION

One of the most striking features of the implementation of NLS and NNS is the way in which the Strategy leaders have modified elements of the Strategies (or messages about these elements) to respond to information about progress and challenges, while maintaining coherence within the Strategies and with other policies. The overall vision set out through the Frameworks has remained constant, but specific priorities and emphases have shifted somewhat in response to data about pupil strengths and weaknesses and to feedback from schools and LEAs.



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### VALUE FOR MONEY

Our cautious conclusion to this point is that the Strategies have provided good value for money. A relatively small additional central expenditure (in the region of 5% of the overall cost of primary schooling) has levered significant shifts in the use of ongoing resources, including teacher time and attention in schools.

### INSTITUTIONALISATION OF A NATIONAL INFRASTRUCTURE

Through the National Literacy and Numeracy Centre, the Strategies provide leadership in development and training throughout the country. Although there have been changes in leadership, increases in the number of Regional Directors and modifications to the nature of the work, the national infrastructure has been able to adjust and evolve as circumstances require. NLS and NNS now reach into LEAs, schools and teacher training institutions with expertise available to support teachers whether they are newly qualified or veterans.

### POLICY COHERENCE

An increasingly high degree of coherence and alignment is evident at the policy level. The year was marked by evolution and extension of the Strategies, as well as by progress toward sustainability. The early momentum has continued as the Strategies have evolved, with a consistent vision that is now supported by more targeted objectives, messages developed in response to performance data and feedback from the field, ongoing development of new resources, and a continuation of training opportunities for more and more teachers. The work has been extended, particularly through providing early assistance to pupils who are falling behind, as well as the Key Stage 3 initiatives and stronger links to initial teacher training. Developments such as increased policy consistency and coherence, continued emphasis on capacity building and attention to the broader context of schooling will contribute to sustainability, although the question of whether and how changes are sustained of course cannot be answered for some years. Similarly, policies and initiatives that appear highly coherent from a central government perspective may still appear fragmented and disconnected when viewed from the classroom.

### BALANCING PRESSURE AND SUPPORT

NLS and NNS have incorporated both pressure and support into the policies and procedures to foster reform. Accountability has remained a strong focus, concentrated through a revised National Curriculum, statements of standards, explicit expectations for achievement, monitoring of NLS and NNS in regular OFSTED inspections and the national assessments. Support, however, is also an integral part of the Strategies. From the beginning, NLS and NNS have focused on teacher learning, with a commitment to providing high quality resources and intensive training and support to develop the capacity to deliver quality teaching in classrooms.

## Questions and Challenges

A number of questions have emerged from our consideration of the evidence available to the end of 2000. Although we are drawing attention to these issues in relation to NLS and NNS, it is important to note that there is still much to be learned about large-scale reform. Because the literature about reform is largely based on changes of more limited scope and smaller scale, the examples of NLS and NNS are particularly valuable as sources of new knowledge. We look at the following

issues: changes in teaching, unintended consequences or costs, sustainability, availability and use of data, and involvement of parents and community.

## CHANGES IN TEACHING

The Strategies provide basic tools for teachers in all primary schools for the teaching of literacy and mathematics. The challenge is to increase the number of teachers who are expert in using the Strategies as a foundation for making connections for each pupil that they teach. Such expertise entails modifying the teaching approach, based on knowledge of pupils' understanding of the material and how pupils learn, and possessing a repertoire of teaching methods. Some careful testing and fine-tuning of literacy and numeracy practices in field settings may provide an ongoing source of insight about how to improve learning in literacy and mathematics. Such data need to be supplemented by independent research looking in more depth at the nature of teachers' beliefs, understanding and skill, and by identifying examples of especially powerful teaching strategies that can serve as models for others.

## UNINTENDED COSTS AND CONSEQUENCES

### *Targets and Indicators*

The proportion of pupils achieving the expected levels on Key Stage 2 national assessments remains the most visible public indicator of the success of the Strategies, although considerable other relevant data is available and increasingly used. The danger is that the high political profile for the 2002 national targets may skew efforts in the direction of activities to increase one highly publicised score, possibly narrowing the curriculum that is taught (Fullan, 2001b). From the data available to us through our site visits, we see some evidence of this happening in schools; in many schools considerable time and energy are focused on test preparation particularly in Year 6.

### *Other Curriculum Areas*

Another issue is the effect that the focus on raising literacy and mathematics attainment has on other subjects in the curriculum. DfES has done a great deal to facilitate the alignment of NLS and NNS with other subjects and for children with special needs. However, we heard concerns about the focus on literacy and mathematics squeezing out other crucial components of school programmes and experience (e.g., foundation subjects, whole-school activities and field trips). We suggest that DfES might assess the effect that the focus on literacy and mathematics attainment has on other parts of the curriculum as well as on pupils' learning with respect to higher order thinking.

### *Manageability for LEAs and Schools*

While feelings of overload and stress are common and perhaps an inevitable side effect of many large-scale approaches to school reform, there is a tendency for reformers (as well as the general public) to minimise the problem, often because of the sense of urgency about the need for change. We argue that doing so, although understandable, is short sighted, because of the negative consequences of such overload for the daily performance of teachers, their willingness to remain in the profession and the attractiveness of teaching as a profession. What might help would be more time to plan for change, and to discuss and work with colleagues. Efforts made by the Strategy directorates to strengthen headteacher capacity for managing NLS and NNS should also help. We suggest that the problem be tackled both from the top, through policy means, and from the bottom, through strengthening the capacity

of schools to deal effectively with external pressures and initiatives. Whatever the response, helping schools deal with overload, pressure and undue stress should be a higher priority than it is now.

## SUSTAINABILITY

The question of sustainability has emerged throughout our evidence – how to embed the reforms so that improvement continues when NLS and NNS are no longer the centre of the educational agenda. The issue is how the Strategies need to adapt to support reforms over time, rather than get them in place. We suggest two issues for attention – the balance between central direction and local (i.e., LEA and school) initiative and the role of the larger "infrastructure" of the teaching profession.

### *Balancing Central Direction and Local Initiative*

The Literacy and Numeracy Strategies were centrally conceived and directed, and our data suggest that schools have generally been inclined to acquiesce to, and approve of, such direction. Such compliance bodes well for implementing the Strategies now and in the near future, but will the government retain the energy and resources needed several years from now to continually update materials, improve on prescribed practices and train new teachers? This seems an unlikely long-term direction and one that might paradoxically result in a culture of dependence at the local level that could reduce the sense of professional autonomy, spirit of enterprise and responsibility for continuously seeking ways of improving professional practice. DfES's success at putting the Strategies front and centre has, for the past few years, reduced the space for local initiative. Recently, though, there have been some moves to give LEAs and schools more autonomy in how they utilise Standards Fund money. The next stage of the reform may well be to strengthen efforts already underway and encouraged by DfES and the Strategies to build professional community both within and across schools.

We are *not* suggesting that the government bow out of its central role with the Strategies. This is not an either-or situation; both central direction and local initiative are necessary. The challenge is to find a dynamic balance that recognises that LEAs, schools, headteachers and teachers are at different points and have different needs.

### *The Teaching Profession*

Ultimately, any changes that occur in schools happen because of the motivation and capacity of individual teachers teaching children in classrooms. It is important for educational systems to attract and develop eager, energetic, knowledgeable and skilful teachers. It is crucial to continue to develop and strengthen the generic infrastructure – policies related to the basic quality of the profession as distinct from specific infrastructure that pertains to literacy and numeracy. Strengthening the profession likely requires changes in initial teacher education, induction, teacher compensation and performance appraisal, as well as leadership development and support, all areas that DfES is currently examining. Whatever specific initiatives the government takes on such matters, we believe it is in the long terms interests of quality education to maintain the traditionally high levels of commitment that teachers have had to their pupils and to the profession. A crucial source of such commitment is a strong sense of discretion and autonomy in responding to the unpredictable challenges found in classrooms.

### AVAILABILITY AND USE OF DATA

As a result of the policy direction in the last fifteen years, England is data-rich and more recently, DfES has been clear that decisions about policy and practice should be evidence-based. The reports that are produced by various government agencies (DfES, OFSTED, QCA, etc.) provide schools and LEAs with the much of the evidence needed for reasoned decisions. Local use of data for routine planning can also enhance decisions and increase efficiency. NLS and NNS have specifically begun emphasising ways in which headteachers and teachers can collect the kind of data that has meaning for them and the decisions that they are making (e.g., curriculum targets, monitoring lessons). Taken together, these multiple sources and uses of data have the potential to steer decisions and suggest adaptations or alterations.

However, data in the hands of naive users can be misleading and result in poor decisions. It may be time to concentrate additional efforts on training programs or services to assist local advisers, headteachers and, particularly, teachers in collecting, interpreting and using data. Standards are raised when teachers use formative assessment of pupils' progress as part of their planning and teaching cycle, as is already happening in many primary classrooms. However, we believe that substantial benefits would result from strengthening training in formative assessment and providing teachers with resources and examples to guide their practice.

### PARENTS, FAMILIES AND THE PUBLIC

The government is well aware of the impact of parents on children's learning and the importance of involving parents in any reform efforts. The national campaigns (National Year of Reading, Maths Year 2000, and so on) have proceeded somewhat outside the school arena. Indications from our survey data and from school interviews suggest that increasing parent engagement is not the first priority; a situation that makes sense given the more urgent and immediate focus on improving teaching and other school inputs. At the same time, our site visits revealed that all schools are working hard to inform and engage parents, but are meeting with varied levels of success.

At this point, we see that the literacy/numeracy focus is appropriately placed on what schools can do to improve pupil learning. However, once the Strategies are well embedded at the school level, with teachers both confident and competent in their use, the next phase of the Literacy and Numeracy Strategies could involve allocating more resources to strengthen parents' contributions to children's learning in literacy and mathematics. Such an effort might focus particularly on pupils and schools where the family resources are least available.

## Conclusion

The National Literacy and Numeracy Strategies have made significant changes in primary education in England in a remarkably short period of time. The change is pervasive and has moved literacy and numeracy to the top of the teaching agenda. We believe that continued change will require consistent pressure and support for the foreseeable future. We have raised a number of issues for discussion about how to secure the long-term effectiveness of the Strategies. These include: the depth of change in teaching practice, the unintended consequences of the focus on targets and indicators, the effect on other areas of the school curriculum, the sustainability of the Strategies, the availability and use of data

and the need to more fully engage parents and families in children's learning.

England is in a period of massive renewal of the teaching profession. Unlike many large-scale reform initiatives the Strategies have had substantial early success. The next phase of NLS and NNS reform is crucial because it involves first, deepening the teaching practices in classrooms and schools, second, ensuring that other areas of the curriculum are progressing apace and, third, attending to what we called the generic aspects of the broader structure of the profession. Much has been accomplished and should be celebrated. At the same time, a careful look at the progress of the Strategies reveals how much more needs to be done to address the reform agenda more comprehensively.

# Chapter 1: Introduction and Framework

The National Literacy Strategy (NLS) and the National Numeracy Strategy (NNS) are comprehensive government-initiated reform efforts, aimed at changing teaching practice and thus improving pupil performance in all the nearly 20,000 primary schools in England. The Strategies, among the most ambitious large-scale educational reform initiatives in the world, are comprehensive in planning and execution, pulling together various policy strands to provide clear direction and support for change. NLS and NNS also incorporate extensive professional development programmes, involving an increasingly large proportion of the 190,000 primary teachers and continuing over several years.

To supplement and complement the internal evaluation of NLS and NNS carried out by the Office for Standards in Education (OFSTED), the Standards and Effectiveness Unit (SEU) of the Department for Education and Skills (DfES) commissioned an external evaluation. SEU retained a team of researchers from the Ontario Institute for Studies in Education of the University of Toronto (OISE/UT) to provide this outside view of the implementation of NLS and NNS.

The OISE/UT external evaluation team acts as a critical friend (Costa & Kallick, 1995; McBeath, 1998) to DfES and other key partners by describing NLS and NNS from different perspectives, drawing connections between the international research literature on large-scale reform and the Strategies and identifying issues for attention. Throughout the implementation of NLS and NNS, DfES and the Strategy leaders have made use of information from a variety of sources. In contributing to this process, the OISE/UT team is assessing the consequences (intended and unintended) of implementation decisions throughout the evolution of the Strategies and providing ongoing advice to those responsible for leading the Strategies forward. Playing this critical friend role over a period of four years from November 1998, we are examining evidence (collected by others as well as ourselves) to track process and progress in the implementation of NLS and NNS at the national, Local Education Authority (LEA), school and classroom levels.

Although impact on pupil learning is an inevitable part of our study of the Strategies, the OISE/UT evaluation is not addressing this dimension in a systematic or focused

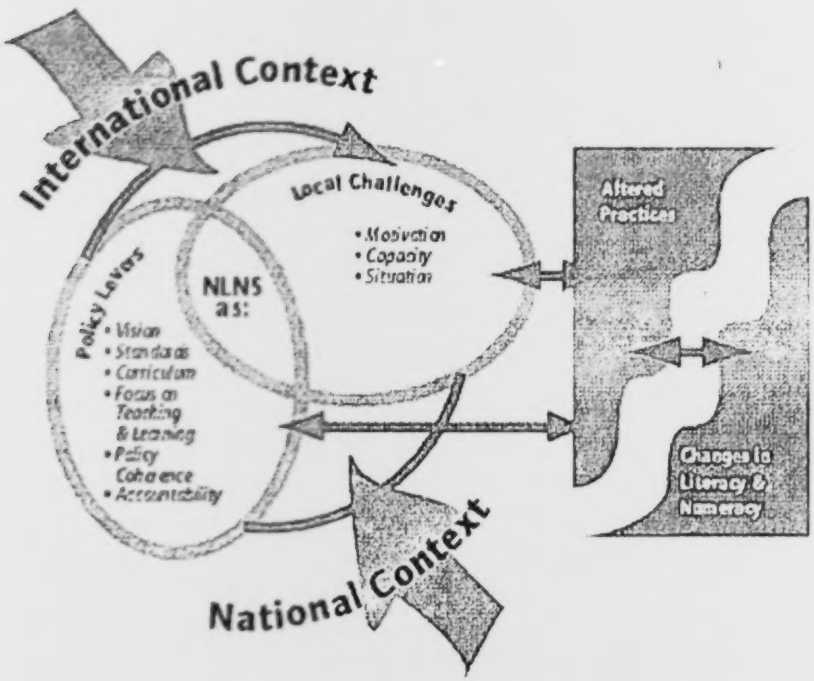
way. Evaluation of teaching and change in pupil attainment are the focus of the HMI/OFSTED evaluation in two samples of schools, one for Literacy and the other for Numeracy. We draw on the HMI work and the work of other researchers in considering the implementation of the Strategies as major efforts at large-scale educational reform.

## Framework for the OISE/UT Evaluation

The OISE/UT team developed a framework for thinking about NLS and NNS by drawing on two reviews of pertinent international literature, each adopting a different lens. Fullan (2000) described the international context for the Literacy and Numeracy Strategies by looking at the return of large-scale reform as a major force in the past decade, identifying features of those reforms that appear to be making a difference. A second review, done by Leithwood, Jantzi and Mascall (2000a), examined both the macro level (policy levers) and the micro level (local challenges) of reform. At the micro level, the review looked at conditions for implementation that are related to altered practices in schools and classrooms. The two papers provide different lenses for examining large-scale reform, recognising the importance of both central mandates and local action. The framework highlights different aspects of the Strategies, with not much of importance left in the shadows. Throughout the course of the evaluation, this framework will be reviewed and refined to reflect our learning from NLS and NNS.

Figure 1 provides a graphic representation of our framework for viewing the Strategies, showing (on the left) policy levers at the national level and (in the middle) conditions for implementation in LEAs and schools.

Figure 1.1

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Together the policies and the local conditions influence practices and changes in pupil outcomes. The framework was developed by mapping backwards from what NLS and NNS aim to accomplish, namely

***improvements in pupils' literacy and numeracy***

We assume that, for such improvements to occur, pupils must directly experience more powerful teaching and learning. Changes in pupils' levels of literacy and numeracy are thus dependent on ***altered practices***, particularly on the part of teachers, but also headteachers, LEA advisers and consultants and, at least potentially, parents. At the central or national level, the Strategies are ***policy levers*** creating the conditions for implementation within which altered practices will occur. All of this activity is occurring within a unique cultural, political, economic and educational ***context***

Viewed through the first lens of NLS and NNS as major national policy levers for large-scale reform, the framework draws attention to the content and structure of the initiative. Comprehensive reform initiatives need to include:

- A vision and goals for the reform and for the education of pupils;
- Standards for judging the performance of pupils and others;
- Curriculum frameworks and other teaching resources to assist in meeting the standards;
- A focus on teaching and learning (including teacher learning);
- Coherent aligned policies to support the initiative;
- Accountability and incentives linked to performance; and
- Sufficient funding and workable governance structures.

The second lens on NLS and NNS focuses directly on schools and LEAs and on variations in the success of efforts to improve teaching and learning. The literature suggests that such variations can be explained, broadly, in terms of the influence that reform efforts have on educators' motivation, capacity and situation. Motivation refers to the willingness to put effort into implementing the Strategies, while capacity refers to pre-existing or newly developed skills and understandings that individuals bring to their work with NLS and NNS. Situation refers to the extent to which the organisational context in the school (and LEA) fosters appropriate changes in practice, what could be seen as "organisational capacity."

The complete framework suggests that to be successful, centralised actions need to build and sustain a comprehensive infrastructure that supports change in classroom and school practice, by motivating educators, building their capacity to implement the reforms and fostering the development of school cultures that will sustain improved practices. This framework provides a guide for our data-collection and our thinking about how the Strategies have been conceived as policy levers and how they are received, understood and experienced in the field.

The OISE/UT evaluation is an investigation of the process of *large-scale reform*. Under what conditions will large-scale reform succeed?

Is it possible to create a central government initiative that (1) motivates educators to change their practice in line with the reform initiatives, (2) provides them with opportunities to acquire the necessary knowledge and skills and (3) builds contexts that sustain the motivation and capacity for change? What does it take to reform a large national education system? Can the important elements of large-scale reform be described for others who are undertaking or aspiring to the same ends? If large-scale reform is possible, how long does it take to institutionalise the practices? Finally, the most significant question is whether or not large-scale reforms can be sustained, and if so, what seem to be the necessary and sufficient conditions for sustainability?

## Findings from OISE/UT First Evaluation Report

In our first annual report, covering the period from November 1998 through December 1999, we concluded that, viewed in relation to other efforts at large-scale reform across developed nations, NLS and NNS were among the most comprehensive and fully developed. Each of the dimensions emerging from the education reform literature had been attended to, although with varying degrees of emphasis and success.

### Summary of NLS and NNS as Policy Levers (from OISE/UT First Annual Report)[1]

The NLS and NNS frameworks, together with the recently revised National Curriculum, gave a ***clear vision*** of the reform and of desired pupil learning. High quality support materials gave concrete images of the Strategies in action. It was still unclear whether this vision was permeating the world of teachers and headteachers.

The National Curriculum, NLS and NNS Frameworks, National Assessments at the end of Key Stage 1 and 2 and guidance documents from QCA and others provided explicit performance ***standards*** for pupils and schools. It was too early in our investigation to say anything about the extent to which the standards were being considered or applied in schools.

The NLS and NNS ***curriculum frameworks*** were supported by high quality teaching materials and resources and professionally produced packs of materials that provided both structure and content for training and for subsequent implementation. The challenge we identified for DfES was to maintain the flow of quality resources to meet emerging needs in schools.

A ***focus on changing teaching practices linked to pupil learning*** was the key feature of NLS and NNS, with substantial commitments to supporting and building capacity in teachers and schools. Both Strategies emphasised high quality teaching. Training sessions were intended to assist teachers to implement the Strategies. Initial findings pointed to changes occurring in classrooms, although the evidence at that time was limited and anecdotal.

Systematic and detailed planning on the part of an increasingly centralised system had resulted in a good fit between other government policies, priorities and guidelines of related agencies and the Literacy and Numeracy Strategies. Such alignment meant that there was a degree of ***policy coherence*** (at least in theory) that is unusual in large-scale reform efforts. The question at the end of 1999 was – to what extent was such coherence actually experienced by LEAs and schools implementing the Strategies?

***Accountability*** was achieved within NLS and NNS through numerical targets for the annual National Assessments for pupils at the end of Key Stage 2 (age 11). Performance data were

[1] *For a more detailed description see the first annual report, entitled* Watching and Learning: OISE/UT Evaluation of the National Literacy and Numeracy Strategies, *available on the DfES Standards Site (http://www.standards.dfes.gov.uk/literacy/publications/).*



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used to monitor progress, with ***additional resources concentrated where most needed*** to raise standards. We raised the problems associated with a single performance indicator and the possibility of poor decisions arising from misunderstanding and misuse of data.

The Strategies have been more generously ***funded*** than most comparable efforts at large scale reform in other countries, although inevitably that funding may seem thin when spread over close to 20,000 schools. The ***governance*** of NLS and NNS reflected a combination of existing and new structures, with both national and local bodies carrying part of the responsibility for implementation. The practicality of this arrangement was still uncertain.

We concluded, at the end of the first year of our evaluation, that NLS and NNS were characterised by notable strengths in areas such as leadership, policy alignment, pressure and support, communication, resources, and responsiveness. At the same time, we identified a number of challenges for the next stage of policy intervention.

**Challenges for NLS and NNS as Policy Levers (from OISE/UT First Annual Report)**

***Changing practice is hard work, intellectually and emotionally:*** To avoid teacher burnout, leaders will need to recognise and reinforce reform accomplishments and avoid over-burdening schools with further demands for change.

***Motivation is important, but it is not enough:*** Sustaining improvements in pupil performance requires that teachers and headteachers have continued opportunities to develop knowledge, understanding and skill.

***New teachers are a long-term investment:*** With attention to initial teacher training (ITT) and to newly qualified teachers (NQTs), new teachers will repay efforts to build their competence and confidence in teaching literacy and mathematics.

***Assessment literacy is necessary for wise decisions:*** Educators and the public need to understand the possibilities and limitations of data on pupil performance and other outcomes.

***Professional learning communities have the power to sustain change:*** Teachers and other educators need to feel a sense of ownership and of collective responsibility for continuing and enhancing NLS and NNS.

***Dissenting voices contribute to clear thinking:*** SEU and NLS and NNS leadership must avoid false certainty and remain open to dissenting voices, while protecting the core principles of the Strategies.

In the first report, we suggested that the initial gains in the 1999 national tests were likely due largely to higher motivation on the part of teachers and others at the local level. The clear direction and support, including the NLS and NNS materials and widespread communication, together with awareness of the national Key Stage 2 tests, led teachers to spend more time and focus more intensively on teaching literacy and mathematics. Although schools generally used the lesson and timing guidelines of the Strategies, we concluded that teachers were likely using their existing capacities more fully, rather than having developed substantial new skills and knowledge. We observed that future increases in pupil learning would require further increases in professional capacity (both individual and organisational), along with continued development of supportive work situations.

## Focus of the External Evaluation in 2000

The framework presented in our first report continues to guide the work of the OISE/UT team. In the first year our emphasis was on understanding the Strategies at the central level. In the second year (the calendar year 2000), we expanded our view to include three components:

- NLS and NNS as policy levers (the view from the centre);
- value for money; and
- NLS and NNS as local challenges (the view from the schools).

### THE STRATEGIES AS POLICY LEVERS

Although the emphasis during our second year was on the local challenges associated with the Strategies, we have continued tracking central policy and programme developments (on the part of both DfES and the Strategy directorate[7]) to update the picture of the Strategies as policy levers. Data collection included attending as many meetings, conferences and training sessions as possible as well as interviewing people with various perspectives on the Strategies and keeping up with relevant documents, materials and publications. Chapter 2 provides an update on such developments at the national policy level during 2000.

### VALUE FOR MONEY

We have also undertaken an examination of whether the Strategies are providing value for money. Data gathering for this component of the study involved analysis of relevant documents, data from our survey, and interviews with staff in DfES, other central agencies, LEAs and schools. Last year, as part of the development of a theoretical framework for the value for money analysis, we produced a literature review in the area of cost effectiveness and value for money in education. Chapter 3 presents the results of the value for money enquiry.

### THE VIEW FROM THE SCHOOLS: SURVEYS AND SITE VISITS

Most of our data collection during this second year of our study focused on what we term "the view from the schools." How schools see centrally generated initiatives may be quite different from how those initiatives are seen by policymakers and centrally placed leaders. Through two methods – surveys and site visits – we gathered data on the perceptions and experience of NLS and NNS in schools (and some LEAs). Using our framework, we looked at the motivation and capacity of teachers and headteachers to implement the Strategies and the extent to which their work contexts supported their efforts. As we have become more familiar with the view from the schools, we have explored the relationship between local perceptions of the Strategies and the central intent, particularly where the two differ from each other.

Chapters 4 and 5 summarise what we found concerning the view from the schools, Chapter 4 using data from a survey of schools and Chapter 5 using data from repeated site visits to a group of 10 diverse schools across England.

[7] *Throughout the report, we use the term "Strategy directorate" to refer to the National Directors of NLS and NNS and the Literacy and Numeracy Regional Directors, supported by the National Centre for Literacy and Numeracy at CfBT in Reading).*

## DATA GATHERING

### Data gathering during 2000

*National/regional: (NLS and NNS as policy levers, value for money)*

- Attended meetings of Literacy and Numeracy Regional Directors, Policy Program Group, Implementation Group, and Literacy Numeracy Strategy Group, as well as regular meetings with various DfES staff;
- Observed NLS and NNS regional briefing/training sessions for LEA literacy consultants and LEA numeracy consultants;
- Attended NLS headteacher conferences;
- Participated in DfES/TTA ITT conference;
- Monitored documents related to all aspects of Strategies;
- Interviewed DfES and CfBT staff and NLS and NNS leaders (including several Regional Directors);
- Conducted interviews (individual and group) with people from a range of educational groups as well as organisations with an interest in various aspects of the Strategies.*

**Local: Schools and LEAs (the view from the schools, value for money)**

- Mailed survey to two samples of 500 schools, one for Literacy and the other for Numeracy. (methodology and results in Chapter 4)
- Visits to 10 selected schools (with various sizes, locations, pupil populations, levels of attainment) and their LEAs: 2 or 3 days in each school, team interviewed headteachers and teachers, observed literacy and mathematics lessons, and analysed documents. Interviewed literacy and numeracy managers and consultants from LEAs of selected schools, attended training sessions and staff meetings in those LEAs. (initial findings in Chapter 5)
- Observations and interviews in 12 other schools (including special schools) and LEAs. Three of these were one-day visits to schools early in 2000, while the others were single visits as part of shadowing RDs or HMI, or attending meetings locally.

Number of days gathering data on site in England during 2000: 82 days.
(4 members of the OISE/UT team)
We interviewed approximately 200 persons, some individually and others in small groups. Some persons were interviewed once, while we talked with others several times.

Throughout the two years of our data gathering, we have found people very willing to speak with us and share their goals and experiences. In all our data collection, we guarantee confidentiality. Because we are outside the system and not involved in any judgements about schools or individuals, we may hear different reports than might be given to DfES, HMI/OFSTED, Regional Directors, or even LEA advisers or consultants.

In addition to these data gathering initiatives, we also began in 2000 the process of disseminating our early findings beyond the initial audience of the DfES-organised Literacy Numeracy Strategy Group. Members of the OISE/UT team gave presentations to a joint DfES/TTA ITT conference, the International Reading Association in New Zealand (with NLS presenters), BERA in Cardiff, and ICSEI in Toronto. In all these venues, the questions and participation of the audience contributed to our thinking about the Strategies, our study and issues related to large-scale reform.

* *Over the first two years of the study, the OISE/UT team interviewed spokespersons from teacher unions; higher education institutions (about both research and teacher training); HMI/OFSTED; associations such as the Literacy Trust, the Basic Skills Agency, the Teacher Training Agency, and the British Dyslexia Association; subject associations; LEA management and professional staff, and independent consultants involved with education and/or with various aspects of the Strategies.*

We continue to find that the large-scale reform framework provides a useful perspective on the Strategies and their impact on primary schools in England, although the framework also prompts us to consider the linkages and relationships in more complex ways. The remainder of this report portrays the results of the second year of our enquiry – the view from the centre, an estimate of value for money and the view from the schools. We conclude, in Chapter 6, with a summary of a number of notable successes of the Strategies to date, as well as discussion of several issues and dilemmas emerging from our enquiry. The picture we present is inevitably more complicated and less clear-cut than the picture presented in our first report. At that time we were focused primarily on the Strategies as central policy levers, whereas we are now pulling together and attempting to integrate information from a range of quite different perspectives, from people who have various roles, differential access to information and different kinds of experience. Inevitably the context and frame of reference of the viewer will shape perceptions and levels of understanding of central policy initiatives.

# Chapter 2: The National Literacy and Numeracy Strategies as Policy Levers

## Highlights

Judged as a large-scale reform effort, using the international knowledge base about such initiatives, NLS and NNS generally come off well – with some cautions and questions.

*Some High Points in 2000*

- Continued momentum (another increase in Key Stage 2 results, funding extended through 2004, greater coherence, extension into ITT, extension to Key Stage 3, expansion of support – Regional Directors, training etc.).
- Key priorities identified to guide work in 2000-2001.
- Stronger support for headteachers to improve leadership and management at school level
- Greater attention to appropriate differentiation for pupils.

*Cautions and Issues*

- Funding, training and support, although generous, is stretched thin when covering close to 20,000 schools.
- Continual vigilance to balancing central direction and local initiative for sustainability.
- Reliance on one public measure of success (percentage of 11 year olds scoring Level 4 in Key Stage 2), although useful as political target, has potential difficulties.
- Possibility of "initiative overload."
- Expansion of Strategy directorate (more Regional Directors): efficiency, flexibility.

## NLS and NNS as Policy Levers – The View from 2000

In this chapter, we update our picture of the Strategies as national policy initiatives. The reference points continue to be the dimensions identified through our reviews of the international literature on large-scale reform (as indicated in Chapter 1):

- Vision and goals;
- Standards for judging success;
- Curriculum frameworks and resources;
- Focus on teaching and learning;
- Coherent and well-aligned policies to support the goals;
- Accountability and incentives; and
- Funding and governance structures.

According to the DfES Standards website (www.standards.dfes.gov.uk), the year 2000 was "the year of irreversible progress" for literacy and numeracy – preparing to "reap the rewards of everyone's efforts in 2002 and beyond." At the national level, the government continues to proclaim its commitment to education as a priority. In a speech to the OECD, Michael Barber indicated that the English government has put into place a framework for continuous improvement that centres on *high challenge, high support*, with NLS and NNS at its core, intent on narrowing the achievement gap and raising standards for all. He went on to say:

> *Those responsible for reforming public education are in no position to deal with certainties. What they can do is manage and transfer knowledge about what works effectively, intervene in cases of under-performance, create the capacity for change and ensure that it is flexible enough to learn constantly and implement effectively.*
>
> **(Barber, 2000a)**

As this quote suggests, a good deal has happened in relation to NLS and NNS as national policy levers since the publication of the first annual report from the OISE/UT team. Rather than creating an extended list of initiatives, we use our framework to describe briefly how the Strategies have developed during 2000, with examples drawn from the rich array of activities and programmes evolving as the Strategies develop. We also identify several issues that emerge from our data gathering.

The year 2000 saw continued NLS and NNS momentum, with clear priorities for immediate and longer-term emphasis, increased resources and assistance to schools (support materials of various kinds, training, in-school support and observations of good practice) and changes in the way Standards Fund monies are accessed and used. The following section gives an update of the kinds of activities occurring at DfES and the Strategy directorates.

## VISION AND GOALS

Although the vision for NLS and NNS remains stable, the goals are becoming even more ambitious and the approaches to change have become more focused. The targets for 2002 – that 80% of children would reach Level 4 in English and 75% in mathematics – now seem likely to be within reach. DfES and Strategy leaders talk about what might be expected beyond 2002, with funding for the Strategies now guaranteed through 2004. Increasingly, Level 4 performance is framed as an entitlement for all children. A message to headteachers in NLS conferences held during the autumn of 2000 is "Level 4 matters for children – it is a passport not a token. It is the least we should expect for most children." It appears that the targets for 2002 are part of what is viewed as a climb towards ever improving pupil outcomes. The messages about both Strategies are also becoming more elaborated and differentiated – moving beyond the necessary initial emphasis on getting daily lessons in place, with the suggested format and teaching approaches.

In continuing to provide training and monitor progress, the Strategies have also spelled out the vision and goals in considerably more detail. DfES and the NLS and NNS directorates have responded to questions from people in the field by providing greater clarity about expectations for pupils with different needs and at different phases of development, and about the training and support that schools will need to achieve



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these ends. This clarity has come in part from a revision to the National Curriculum, where there has been close co-ordination between the Strategy leaders and QCA, and from new guidance documents, resources and training packages.

Both Strategies have laid out immediate and medium term priorities that are primarily concerned with building capacity in teachers and schools. In a September 2000 letter to LEAs, the Director of NNS outlined four priorities for LEAs for the 2000-2001 school year and went on to outline how each of these might be addressed. The priorities for mathematics are:

- Improving the quality of teaching in the main part of the lesson and the plenary;
- Strengthening teachers' subject knowledge of mathematics;
- Promoting a strong message about the use of calculators in Years 5 and 6; and
- Establishing effective support for children who have fallen behind.

For NLS, the top priorities are ensuring 'quality teaching' in the literacy hour, with particular emphasis on the teaching of writing, and improving management of literacy in all schools, particularly through effective use of curriculum, year group and pupil targets. Although numerical targets are still important, schools are encouraged to attend more to curricular targets – identifying what specific groups of children need to learn next and how teachers can address these needs.

## STANDARDS

As we noted in our first annual report, standards can be slippery concepts that have many different definitions. Standards have been incorporated into NLS and NNS in a number of different ways, beginning with the numerical targets, based on Key Stage 2 tests, set for 2002. As perceived by many schools, the aim of "raising standards" was, initially at least, almost equated with raising Key Stage 2 test results. Because these test results are reported publicly in league tables, with high stakes for schools, there is some risk that the assessments might become more important than the learning they represent. In the United States, where "high stakes" testing has a long tradition, the consequences have been identified and studied for decades (see McNeil, 2000).

> *When academic progress is judged by a single indicator and when high stakes...are attached to that single indicator, the common effect is to narrow curriculum and reduce instruction to "test prepping."*
>
> **(Thompson, 2001, p. 358)**

With NLS and NNS, however, compared to many reform situations, schools have much more information available about what the standards represent in practice. Schools also have a more diverse set of standards to consider. Although the proportion of pupils reaching Level 4 is still the public target, NLS and NNS messages include a broader range of indicators. Regional Directors, for instance, work with LEAs in careful analysis and consideration of LEA data, including results on the Key Stage 1 assessments, the progress of pupils between Key Stage 1 and 2 and the performance of EAL pupils. Guidance from QCA, based on analysis of annual test results, has led to greater clarity about what





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is required for pupils to reach various levels in both English and mathematics. Regional Directors have reinforced these messages through training sessions and further production and dissemination of resource materials. With the support of NLS and NNS, LEA advisers and consultants encourage headteachers and teachers to "go beyond the numbers" to develop curricular targets – gaining a secure understanding of what Level 4 or 5 work "looks like" and determining what should be done to move specific groups of children forward. Increasingly, schools are translating these descriptions of performance levels into child-friendly language, to give children a concrete understanding of how to assess their own work and of what they should be trying to achieve next. This has been done for all Year groups, so even Year 1 and 2 children can be aware of their own learning objectives.

Various reports that go far beyond the percentages of pupils reaching Level 4 have been produced and distributed to schools by DfES, OFSTED and QCA. These reports include more data about performance (both local information and national trends) and provide schools with additional information that allows them to interpret their results in a variety of ways. For instance, schools and LEAs are encouraged to look at the whole distribution of scores to confirm that all pupils are progressing, not just those who might be the particular focus of attempts to reach the Key Stage 2 targets. At the same time, the Key Stage 2 national targets for 2002 remain the most visible test of success for the Literacy and Numeracy Strategies, at the national and the local level. The well-publicised targets, framed in terms of the percentage of children reaching Level 4, along with the high political profile of these targets, have made performance on the assessments a high stakes issue.

A crucial question in standards-based reform like the Strategies is whether schools are prepared to trust that following the reforms and utilising available knowledge, direction and support will lead to the desired increases in test results. The leaders of NLS and NNS continually reinforce the message that the Strategies and the management approaches that surround them will indeed produce such outcomes. NLS and NNS, for instance, through an emphasis on Key Stage 1 (e.g., phonics and early intervention programmes), stress the importance of good teaching in the early years of formal schooling. Our investigation of how targets and data from the national assessments and from other sources are received and used in schools and LEAs will give some indication of the extent to which schools are acting in accordance with this message.

## CURRICULUM FRAMEWORKS AND OTHER TEACHING RESOURCES

The provision of curriculum and pedagogical resources for teachers has been a vital component of both Strategies from the beginning. This activity did not stop after the first flurry of production and distribution. During 2000, both Strategies, through the National Centre for Literacy and Numeracy, released a wide range of additional materials, mostly intended for teachers and headteachers. Such programmes and modules, their development often influenced by feedback from the field, are intended to support identified priorities (such as children's writing) or provide additional support in dealing with particular groups of pupils (such as those with special educational needs or the particularly able).

Both NLS and NNS have now produced much-needed lists or catalogues of available support materials, to help schools find the resources they need.

A sample of the rich array of materials and modules introduced during 2000 includes (among many others):

- Modules designed to strengthen the provision for particular groups – able pupils, pupils with English as an additional language, and pupils with special educational needs.
- Modules for headteachers on the management of literacy.
- The Grammar for Writing package (book, video and CD), envisioned as a lever for improving writing, by giving children more choices as they write.
- The Springboard 5 mathematics programme (lesson plans, video), to assist children who would otherwise reach Level 3 rather than Level 4 (to be followed by similar programmes for Years 3 and 4).
- Other new materials, such as a training pack, available to all schools on request, "Using ICT to support primary mathematics" and leaflets to support literacy and numeracy in Reception classes.

More materials are being developed and will be available during 2001. The Numeracy Strategy, for instance, in response to requests for more assistance with assessment, is developing guidance for schools to support the use of "assess and review time." More NNS material related to special educational needs will include a binder of guidance for consultants, a SENCO training package to help support children in the daily mathematics lesson and a "P-scale supplement" of examples for pupils who are significantly below age-related expectations. Examples of NLS work include a focus on "developing early writing" (with guidance and training) and the national implementation of the Early Literacy Support initiative.

Both NLS and NNS improved their websites (located on the DfES Standards site) during 2000, re-organising and adding links to more information. With both Strategies, teachers and other educators are encouraged to use the web for their own professional development, keeping up with recent developments and downloading material.

## FOCUS ON TEACHING AND LEARNING

The core of the Strategies has always been the focus on the teaching of literacy and mathematics in schools – through the frameworks, curriculum materials, training and support for teachers. During 2000, both materials and training associated with the Strategies became more purposeful and differentiated, often in response to feedback from schools and LEAs. With explicit attention to the diversity of pupils in schools, training and support has been extended to include not only practices for use in most classrooms and under typical conditions, but also adaptations for specific situations or particular groups of children. NLS and NNS training has been extended and customised for a range of groups, with updated programmes developed for LEA consultants, headteachers and newly qualified teachers, to support the Strategies now and in the future.

*Differentiation of Teaching*

An almost inevitable tension is embedded in the Strategies, a tension between seeing NLS and NNS as an entitlement for all children and acknowledging the varied learning needs of different groups of children. NLS and NNS have been developed with the assumption that all children should participate in the literacy hour and the daily mathematics lesson, while acknowledging that some children will require differentiated support and assigned learning tasks. The Strategies have addressed the challenge through a variety of approaches during 2000.

*SEN:* Early in NLS, there was particular concern from the field about how children with Special Educational Needs were faring with the Literacy Strategy. Although the literacy hour is seen as an entitlement for all children, including those with Special Educational Needs, in practice many schools found it difficult to ensure that SEN children received the teaching they required. Fewer concerns were raised about the Numeracy Strategy, coming a year later. From the beginning NNS made specific reference to teaching SEN children, for instance including in initial training videos sequences from lessons in a special school.

During 2000, both NLS and NNS have given considerable attention to the teaching of SEN children, working closely with the SEN community (including LEA and school SEN specialists) and ensuring that SEN issues are explicitly addressed in training programmes. A major NLS training package on SEN was distributed to LEAs in the spring of 2000. As well, DfES commissioned an NFER review of relevant research in the area of literacy and special educational needs, published in October (Fletcher-Campbell, 2000). As noted above, additional NNS materials will be distributed in 2001 to further support the teaching and assessment of children with special educational needs. An HMI/OFSTED report on NLS in special schools (OFSTED, 2000a) concluded that the Strategy had been successfully implemented in special schools and that children were making progress with literacy. The report noted that teachers expressed pleasure (and often some surprise) at how well children had responded.

In our data gathering, we saw special education units in regular schools, where SENCOs, using materials they had developed for specific populations, reported greater pupil success since adoption of the Strategies. In many schools as well, SEN children are making good progress with the additional intensive support of trained classroom assistants. In spite of this more positive picture, concerns from the SEN community have not completely eased, particularly with regard to literacy, and with children in regular classrooms rather than special schools. We heard from spokespersons who were highly supportive of the Strategies, but who wondered whether teachers and consultants, although they were knowledgeable about teaching literacy, had sufficient understanding of the nature of SEN pupils' disorders. Such problems, of course, did not arise with the introduction of the Strategies; they are longstanding. We heard concerns too that with extra funding targeted to children who "almost reach the target," SEN children in mainstream schools who are far from achieving Level 4 may not get the extra time and teaching they need.

*Able pupils:* Questions initially arose from the field about whether the literacy hour and the daily mathematics lesson sufficiently challenged and engaged the more able pupils.

In response to such concerns, materials and training were produced and distributed early in 2000 to help teachers be more effective in dealing with children who are particularly able.[4] Data from 2000 Key Stage 2 assessments should allay some of the concerns that able children might be disadvantaged by the Strategies, as the percentage of pupils gaining Level 5 actually increased.

*EAL pupils:* During the past year as well, increased attention has been paid to teaching children who are learning English as an additional language. NLS and NNS have now produced materials – covering effective pedagogy and 'best practice' – to assist teachers in working with these pupils. LEA EMTAG and EAL staff usually deliver the training sessions, with support available from NLS and NNS as needed.

*Intervention Programmes*

The Strategies have developed a variety of special interventions aimed at children whose progress is slower than that of their peers and who need more intensive support if they are to reach the expected levels of performance.

NLS has developed an early intervention programme intended for children in Key Stage 1 who do not make adequate progress in spite of quality teaching in Reception and the first term of Year 1. The aim is first to ensure high quality initial teaching in the literacy hour, to reduce the number of children who will need further assistance. Additional targeted interventions are then provided for children (about 20%) who are not making satisfactory progress. Such assistance is provided in small groups, usually by a trained classroom assistant, using materials specifically developed for that purpose. Attention could then be concentrated on the much smaller proportion of children (approximately 5%) for whom the additional small group teaching proves insufficient and who will need more focused one-to-one support if they are to catch up to their peers. The Key Stage 1 programme was piloted in 38 LEAs and will be implemented more widely in the 2001–2002 school year.

Key Stage 2 interventions, in both literacy and mathematics, generally are aimed at children, who, without the extra help, are on track to reach Level 3 rather than Level 4, the expected level for 11 year olds. NNS Springboard 5 has joined NLS Additional Literacy Support; both are highly structured programmes delivered to small groups of children by a teaching assistant operating under the direction of the class teacher. Springboard 5, intended for Year 5 pupils who would otherwise not reach Level 4, involves additional teaching time over a period of 10 weeks. Funding provides time for the teaching assistant to meet with the class teacher on a regular basis. Springboard 3 and 4, similar programmes aimed at pupils in Years 3 and 4, are now being developed. The other Key Stage 2 interventions, booster classes for children who need additional support in Year 6, have been implemented in the vast majority of schools. Schools have considerable flexibility about how these booster programmes are organised and staffed.

The Strategies have continued the development and expansion of literacy and numeracy summer schools, another intervention for pupils who need additional support, in this case for pupils who have

[4] *e.g., National Literacy and Numeracy Strategies Guidance for Teaching Able Pupils, NNS Mathematical Challenges for Able Pupils in Key Stages 1 and 2).*

completed Year 6 but are deemed not fully ready for Year 7. These programmes numbered 1800 in the summer of 2000; in 2001 there will be over 2000, enrolling up to 66,000 children. The summer schools have become more sharply focused, with the aim of helping children make more rapid progress in their first year of secondary school.

*NLS and NNS Training and Professional Development*

Strengthening teacher learning has always been a key goal for NLS and NNS, with approximately half the funding for the Strategies allocated to training and support, a focus that has continued and diversified during 2000. For schools, such support comes predominantly from consultants and leading mathematics teachers and expert literacy teachers.

Professional development sessions for LEA consultants, delivered by Regional Directors or by other knowledgeable trainers contracted by NLS and NNS, continue to provide updated information about the Strategies, a strengthened understanding of English and/or mathematics issues and opportunities for sharing good practice and solving implementation problems. LEA consultants deliver most of the training for teachers. By the end of 2000, virtually all schools had had direct training opportunities in at least some aspects of both NLS and NNS. Although there are still many individual teachers who have not been directly involved in training, the philosophy of "support in inverse proportion to success" has meant that schools with the furthest to go were the first to get training. These schools also received several days of in-school support from literacy or numeracy consultants. More recently, the Strategies have moved to provide some consultant support and supply cover time for *all* schools.

Demonstrations and discussions of good practice by leading mathematics teachers and expert literacy teachers have enabled many more teachers to increase their understanding and skill in relation to the desired teaching approaches. The opportunity to observe skilled colleagues and to talk about various aspects of the planning and lesson delivery can be a powerful force for both motivating teachers and developing greater expertise.

NLS headteacher conferences in autumn 2000, intended for all headteachers in the country, provided key opportunities for establishing management approaches for NLS. The focus was on improving writing, seen as a weak area, and helping schools set curricular targets at the classroom level, based on what children needed to learn next. NNS will hold similar conferences in the autumn term of 2001, focused on what headteachers most need to know and be able to do to improve mathematics teaching and attainment.

*Initial Teacher Training*

In addition to providing more training for those already in the profession, NLS and NNS have strengthened links with institutions that train new teachers – the Strategies now extend explicitly into initial teacher training (ITT). The aim is to promote best practice in the areas of literacy and numeracy and ensure that newly qualified teachers (NQTs) enter schools equipped to teach the literacy hour and the daily mathematics lesson. Working closely with the Teacher Training Agency (TTA), NLS and NNS appointed six additional Regional Directors, three for each Strategy, to work closely with higher education institutions. DfES and TTA also co-sponsored an ITT conference in July

2000, an initial launch that has been followed by regional meetings and conferences as well as regular Regional Director visits to all institutions providing initial teacher training. NNS distributed two videos specially produced for teacher training institutions. In NLS, a higher education writing initiative involves collaboration between English tutors and ITT Regional Directors, with 10,000 ITT students receiving training in all facets of teaching writing. In their school placements, the ITT students and their class teachers analyse and plan literacy lessons together, a professional development opportunity for all those involved.

*Building Organisational Capacity*

In our first annual report, we suggested that DfES and the NLS and NNS directorate pay attention to fostering local organisational capacity or professional communities (see Louis & Kruse, 1995). We are now aware of various activities taking place within and across schools for creating professional communities, most with an emphasis on sharing good practice. This is done, for instance, through Beacon Schools (which are not specific to literacy and numeracy but are helpful in building and sharing improved practice) and the work of leading mathematics teachers and expert literacy teachers and headteachers. In all these, the focus is on demonstrating and sharing "best practice" in a context in which teachers and headteachers are encouraged to reflect on and discuss what they see. Beacon writing schools are now being established as part of the intensive focus on improving children's writing. Within schools, the work of the literacy and numeracy co-ordinators can help build organisational capacity, particularly where this role includes monitoring and coaching, but to do this, co-ordinators must have sufficient non-contact time. They may also need support in developing the skills required to work effectively with their colleagues in this new role.

Headteachers clearly have a critical role in building a professional community within the school – the NLS and NNS headteacher conferences being held in the autumn terms of 2000 (literacy) and 2001 (numeracy) are a recognition of the importance of the contribution and leadership of headteachers. LEAs can and often do play an active and valuable role – through training sessions, twilight surgeries, regular meetings for school co-ordinators and so on. Consultants' in-school support can be particularly valuable, not only in helping teachers develop more effective practices, but also encouraging staff to work together to continue improving their classrooms and the school. It is important in all these activities that LEAs and schools feel both responsibility and ownership with regard to improvement initiatives. Based on our observations and interviews, there is considerable variation in the extent to which this is the case. We frequently heard that educators find themselves feeling unduly constrained by rigid requirements from DfES. On the other hand, we spoke with other LEA staff who felt they had sufficient scope to adapt initiatives to suit local needs, either by negotiating with DfES or with Regional Directors, or by simply going ahead and making necessary modifications.

Organisational and individual capacity is also being expanded through embedding material from the Strategies into other training that is offered by LEAs. For instance, EAL materials for NLS were introduced at regional conferences for literacy line managers and EMTAG co-ordinators, with the expectation that EMTAG staff would then deliver the

training in the LEA, either on their own or in collaboration with literacy consultants. The same model was used with SEN materials, with the SEN officer or adviser as a key contact. Similarly, NLS/NNS-developed modules on literacy and numeracy were included in the national materials for training new teaching assistants, with the training provided in LEAs.

## COHERENT AND INTEGRATED POLICIES

Efforts at "joined-up thinking" had characterised the Strategies from the beginning; we noted in our first annual report that an unusually high degree of alignment had been achieved between NLS and NNS and other DfES policies, as well as those of other relevant agencies such as OFSTED, QCA and TTA. The revision of the National Curriculum, the establishment of the new Foundation Stage for young children and the extension of the reform efforts into Key Stage 3 are all evidence of increasing policy alignment. The revised National Curriculum, a reasonable response to concerns about "fitting everything in," is intended to be more manageable given the increased focus on literacy and numeracy. As noted, this past year has seen NLS and NNS extend into ITT, with strengthened liaison with higher education institutions and efforts to resolve inconsistencies between the Strategies and policy documents specifying the ITT curriculum. Another instance of consistency across related areas is the requirement for Newly Qualified Teachers (NQTs) to pass literacy and numeracy tests; both the requirement and the specific tests have generated some controversy.

From the perspective of the central government, NLS and NNS are part of a larger plan for systemic reform of the education system. The Strategies are seen as powerful tools for "levelling up" and for improving the quality of teaching and learning. Other policies and initiatives are intended to support this effort – for example, smaller class sizes, revision of the National Curriculum and modernisation of the teaching profession. The head of the DfES Standards and Effectiveness Unit continues to outline the larger picture of reform (Barber, 2000a). He has "restated the case for public education" in the 21st century, suggesting that England will need "flexibility and capacity for transformation ... while simultaneously improving student outcomes." In outlining the goals and challenges confronting the system, he puts forward a vision for the future that puts the Literacy and Numeracy Strategies in a larger context of reform.

In our first annual report, we talked about progress in bringing together curriculum and standards from QCA and OFSTED on the one hand and the Literacy and Numeracy Strategies on the other. This work has continued during 2000; with changes in senior leadership in QCA and more recently OFSTED and the Strategy directorate, we will continue to follow progress with bringing together the various frameworks and requirements that impinge on schools.

The larger picture of increasing policy coherence is evident at the national level. It is not surprising, however, that people in schools continue to view the Strategies through personal and local lenses. They do not speak of education for the 21st century; instead they are focused on what the Strategies mean for them and their pupils, and are still struggling to see how various policy initiatives fit together. Although headteachers are more aware of links to the

larger policy context, classroom teachers often see each new programme or requirement as "just one more thing" coming from above.

## ACCOUNTABILITY AND INCENTIVES BASED ON PERFORMANCE

As a result of the policy directions in the last fifteen years, educational reform in England is highly data-driven. The focus on school improvement has resulted in the development of many procedures and mechanisms to monitor the work of schools. Such mechanisms include oversight by DfES advisers, universal national assessments of children at the end of each Key Stage and regular inspections of all schools, LEAs and higher education institutions by OFSTED. Much of the monitoring of NLS and NNS is embedded in this general structure; monitoring of progress, which leads to adjustments in pressure and support, is a vital component of the drive to raise standards.

The yearly National Assessments in English and mathematics, particularly those at the end of Key Stage 2, form the basis for target-setting and for monitoring progress towards the literacy and numeracy targets at the national, LEA and school level. Judged by this criterion, the 2000 results showed continued progress toward the 2002 targets. Such improvement has been evident since the establishment of the tests in 1996, in English, mathematics and science. It is difficult to know what might account for the science results; the increase raises questions about what has driven the improvement, although higher levels of literacy and numeracy might be a factor.

| | 1996 | 1997 | 1998 | 1999 | 2000 | 1996 to 2000 |
|---|---|---|---|---|---|---|
| English | 56% | 63% | 65% | 71% | 75% | +19% |
| Mathematics | 53% | 61% | 59% | 69% | 72% | +19% |
| Science | 61% | 68% | 69% | 78% | 85% | +24% |

As we indicated earlier in this chapter, the possible unintended effects of relying on a single indicator for high stakes accountability are well known (e. g. Thompson, 2001). A single measure cannot fully capture all the important dimensions and nuances. Furthermore, people may put undue effort into attempts to raise scores, giving less attention to important components not tapped by the measure.

Nonetheless, data so far suggest that the Strategies are avoiding some of the dangers of using high-stakes large-scale testing. Much depends on the nature of the test – a test such as the Key Stage 2 SAT that requires children to produce complete pieces of writing is less problematic than a multiple-choice standardised test focusing on recall of facts. For NLS and NNS, the increased emphasis on curricular targets and identifying the next appropriate learning for specific groups of children also help to broaden the focus beyond the SAT scores. With NLS and NNS, there are two issues – the reliance on the Key Stage 2 national assessments as "the indicator" of learning and the target framed in terms of the percentage of pupils reaching Level 4 on that assessment. Key Stage 2 intervention programmes tend to be directed at the "not quite Level 4" group, raising the possibility that these children may benefit disproportionately from the intervention efforts. Evidence to date, however, indicates that this has not happened; the entire distribution of scores has moved up (QCA, 2000). In other words, children at all levels have improved; the percentage of children getting the lowest scores has declined, while

the percentage reaching Level 5 has increased. The issue of the single indicator is one that we will continue to investigate as we follow the implementation of the Strategies.

In addition to the routine monitoring through Key Stage assessments and OFSTED Section 10 inspections, NLS and NNS are specifically monitored by HMI, by the NLS and NNS directorates and by LEAs. All of these provide additional useful data beyond that generated by the national assessments, broadening the base on which planning and decisions are made.

The HMI/OFSTED evaluation involves two samples of 300 schools – one for literacy and one for numeracy. Information is gathered through twice-yearly inspections, based specifically on NLS and NNS, as well as an annual testing program in Years 3, 4 and 5 to augment the National Assessment results. Recent reports (OFSTED, 2000b and 2000c) from these studies indicate that the Strategies are having a major impact on the teaching of English and mathematics in English schools and suggest that NLS has transformed the teaching of reading in primary schools although the impact on writing is much more limited. The HMI findings support the earlier decision of NLS leaders to give high priority to providing training and resources focused on improving the teaching of writing. In mathematics, HMI conclude that NNS has made a very good start but concur with the NNS leaders in observing that teachers are not yet secure about their subject knowledge and teaching of mathematics.

We have already mentioned the OFSTED report on the implementation of NLS in special schools (OFSTED, 2000a), drawing on inspection of special schools in LEAs that were part of the larger NLS sample, supplemented by data from Section 10 inspection reports of special schools. The report summarised what schools were doing well and made recommendations for improvement. In general, both teachers and pupils in special schools had responded well to the Strategy, with pupils making "sound or good" progress.

Regional Directors monitor NLS and NNS progress through visits, meetings and observations in LEAS, as well as through LEA reports and analysis of test scores. DfES advisers also look at literacy and numeracy during ongoing monitoring of LEAS in their regions. Regional Directors of both Strategies give special attention to "LEAs causing concern." These less formal monitoring activities have resulted in better understanding of the needs in particular areas and prompted Regional Directors to sharpen the intended focus for LEA literacy and numeracy consultants, to maximise the impact of their time and support. NNS, for instance, has identified three priorities for consultants – addressing weaknesses head-on by working with schools not on track to reach their targets, focusing school-based support on Years 5 and 6, and focusing their demonstration lessons on NNS training priorities and ensuring that several teachers observe each demonstration.

LEAs, often working closely with NLS and NLS Regional Directors, use data and school visits to monitor the Strategies in their schools, using these mechanisms for setting targets, creating Educational Development Plans and planning additional professional development.

## SUFFICIENT FUNDING AND WORKABLE GOVERNANCE STRUCTURES

Any undertaking the size of NLS and NNS requires a major allocation of resources and attention to the kind of infrastructure that will be required, not only to establish the reforms, but also to sustain them over time. Striking the appropriate balance between using existing structures and creating new ones is difficult. Ultimately, decisions need to be made on a new or modified process for longer-term efficiency and sustainability. Both funding and governance for NLS and NNS have featured new procedures and new roles; it is not yet clear what the long-term arrangements will be.

### *Funding*

In Chapter 3, we undertake a more in-depth look at costing and value for money and related resource issues. Here we provide a brief sketch of recent developments.

We concluded in our first annual report that NLS and NNS are adequately funded, at least compared to large-scale reform efforts in many other jurisdictions. Through the Standards Fund, the central government covers part of the salary costs of literacy and numeracy consultants and part of the costs of leading mathematics teachers and expert literacy teachers and headteachers. The Standards Fund provides books and materials, as well as the costs of venues and supply cover for training. Briefing/training for the LEA literacy and numeracy consultants, provided by the Regional Directors, represents a further substantial investment and benefit to LEAs. The government has also provided additional monies to address certain priorities. Most significantly, substantial amounts of money have been devoted to efforts to assist particular groups of pupils through catch-up programmes and summer schools. At the same time, even substantial levels of funding are stretched thin when policies are expected to produce significant changes in teaching practice over nearly twenty thousand schools. LEAs and schools are also using a variety of other sources, such as EAZ funds, the Single Regeneration Budget, and the New Opportunities Fund to support literacy and numeracy work.

Changes in guidelines regulating access and use of the Standards Fund from April 2001 will result in somewhat less flexibility for LEAs, with more funds going directly to schools. This change caused some concern on the part of the NLS and NNS directorate that schools might weaken their emphasis on literacy and numeracy. To counter this possibility, provision has been made for LEAs to retain a substantial amount of funding for targeted support of literacy and numeracy.

### *Governance*

The complex NLS and NNS management infrastructure has continued to operate and develop relatively smoothly over the past year, but a number of changes are in the offing. One significant change is the retirement of John Stannard, the Literacy National Director, at the end of December 2000. At the same time, Anita Straker, Numeracy National Director, shifted to direct the Key Stage 3 initiative. Both changes added some urgency to the task of reviewing and revising the organisational structure. There has also been an increase in the number of Regional Directors since the initiation of the Strategies. As central initiatives have increased, more Regional Directors were added to manage these without jeopardising the monitoring and support of LEAs across the country. The addition of the Key Stage 3 focus will result in further increases – with a possible total of

24 Regional Directors in each of NLS and NNS, a number that mitigates against the participatory problem solving meetings that have taken place up to now.

The proposed solution has been to re-organise into layered smaller groups that would meet both regionally and according to level (i.e., Key Stage 1 and 2, Key Stage 3, ITT). Within each Strategy, a sub-group of Regional Directors with management responsibilities will meet regularly with the National Director to ensure that communication and co-ordination are sustained. The full group of Literacy or Numeracy Regional Directors will still meet, but on a less frequent basis. It is possible that this organisational change, necessary as it is, could affect the high level of communication, collective decision-making and flexibility that have characterised operations of the Strategy directorate to date.

Beyond the Regional Directors, management of NLS and NNS across the country has largely been conducted through LEAs. LEAs are the locus of support and pressure for NLS and NNS, in a context where their role and responsibilities in national education reform have recently changed. The government has made raising standards a clear priority (DfES, 1998, 1999). LEAs are expected to provide both pressure and support to schools, especially those causing concern. No longer autonomous entities, they are required to produce Education Development Plans and are inspected by OFSTED for their work in school improvement, provision of special education, access to schools for all pupils and strategic management (OFSTED, 1999). At the same time as they are being held responsible for school improvement, the LEAs have become the focus of pressure for NLS and NNS. They are the mediating body for target-setting, with LEA targets negotiated with SEU and LEA advisers monitoring the schools and negotiating individual targets with each school. LEAs also play a substantial role in organising, developing and using data for strategic decision-making and planning for improvement in schools. In our visits to LEAs, advisers noted the constraints under which they operate. They pointed out that requirements from central government (and the Literacy and Numeracy Strategies) do not always coincide with their judgements about what would make sense for their schools, for instance in terms of setting targets or offering training. Similar concerns have been noted in a recent study of the role of LEAs in school improvement (Derrington, 2000). Although the DfES principle of "intervention in inverse proportion to success" applies to LEAs as well as schools, some highly successful LEAs, although in general agreeing with NLS and NNS priorities and approaches, felt they needed more flexibility. One LEA adviser, voicing a view we also heard from others, expressed a desire for "a subtle shift in the relationship" between the central government and those working at the local level:

> *I think if the government continues with this top-down-you-will-do-what-we-say, there will be a reaction against it... It will be counterproductive in terms of opening up all the creative opportunities that are there for teachers to take it on and make it better than it is ... And yet to me the option isn't "so we'll hand it over to you now." ... It's about professional respect and freedom within the context.*





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## National and International Context

We noted in our first annual report that both the design and implementation of NLS and NNS are inevitably much influenced by both the national and international context in which the reform is taking place. Elements of the national context are particularly important as influences on how policies are perceived and understood in schools. In England, a crucial aspect of the context is the history of government pressure and support for education over the last fifteen years. The late 1980s and early 1990s saw a sudden and dramatic increase in pressure, with little or no additional support, at least from the perspective of schools. With the change of government in 1997, some in education hoped for a reversal of this trend. The government, however, although increasing funding and other support, did not ease the pressure. Instead, DfES has explicitly adopted a "high challenge, high support" stance toward schools, combined with the principle of "intervention in inverse proportion to success." For many in education, the previous decade (mid-1980s to mid-1990s) of what was termed "naming and shaming," along with disappointment that pressure or challenge is such a dominant feature of the current context, still influences how government actions are perceived and experienced.

Events over the past year continued to reinforce the importance of the national context in shaping the development of policy initiatives, as well as the perception of such initiatives by schools and LEAs. Although our mandate is limited to studying NLS and NNS, to give some indication of the impossibility of looking at them in isolation, we briefly mention a few examples of developments that affect the Strategies, both directly and indirectly.

A number of policies and programmes, some of which have already been mentioned, increase consistency throughout the school system, reducing barriers and supporting implementation of the Strategies. Such policies and programmes can be seen as part of the emerging infrastructure that helps to sustain improvements in teaching and in pupil attainment. Examples include the following:

- Progress is being made on the government pledge to reduce class sizes for children up to age 7 (to a maximum of 30).

- The Foundation Stage, for children from the age of 3 years to the end of the Reception Year, began in schools in September 2000. The document "Curriculum Guidance for the Foundation Stage" includes a set of Early Learning Goals that link to the National Curriculum levels.

- The extension of the Strategies into Key Stage 3 (ages 11 to 14) will build on success in the primary school.

- Family literacy and numeracy programmes, operating in many schools and LEAs, help parents improve their own levels of literacy and numeracy and thus enable them to better support their children.

- Increased funding is provided for educational support to children whose first language is not English.

- Read On, the continuation of the earlier National Year of Reading, and Maths Year 2000, provided opportunities for private

and public sector involvement in the literacy and numeracy campaign, as well as fostering more positive attitudes and encouraging parents to become more engaged in their children's learning.

Other developments may also influence the context in which NLS and NNS are being implemented. A potentially serious issue has to do with what seems to be increasing pressure or overload for teachers and headteachers in English schools. Concerns about overload and stress emerge from our own interviews and school visits, but have also been raised by others. A recent national study on teacher workload documents how the Literacy and Numeracy Strategies "placed significant workload demands on teachers" due in particular to the time required for planning and for documenting plans and assessments (Hulusi, Stone & Joyce, 2000). Another independent survey (TES, 2000) found that teachers still enjoyed their work, but they expressed concern about excessive bureaucracy and workload (views shared by teachers internationally, as documented by Scott, Stone & Dinham, 2000).

Ambitious large-scale reform inevitably has an impact, often negative, on teachers and their work lives. Evidence about such effects is increasing, not only in Britain but in other countries as well (e. g. Caldwell & Hayward, 1998; Dinham & Scott, 2000; Leithwood, Jantzi & Steinbach, 2000). Yet the main body of international literature on large-scale reform tends to be oddly silent about issues of overload or manageability. In the two review articles prepared for the OISE/UT evaluation, for instance (Fullan, 2000; Leithwood, Jantzi & Mascall, 2000a) questions about manageability of the reforms (for teachers) did not emerge as one of the dimensions needing to be addressed by policymakers. We looked again at the literature, prompted by our observations and conversations in schools (and by our survey results). We found that recent research is now suggesting that such collateral outcomes can threaten the success of even well designed reforms (Hightower, 2000). During our inquiries and observations, we have noticed that DfES and Strategy leaders, highly committed to the reforms, put in extremely long hours themselves. Most seem willing and happy to do so. Perhaps such intensive work patterns make it more difficult for senior leaders to see teacher overload as a serious problem. Although teacher and headteacher fatigue is acknowledged as a possible outcome, the Strategies are portrayed as a route to higher performance in all subjects and, optimistically, "an energy booster, bringing nationwide respect to primary teachers" (Barber, 2000b). Reports from those who work with teachers and headteachers on a regular basis, however, are less optimistic, suggesting, in the words of one independent consultant, that "People [in schools] are profoundly tired." A headteacher quoted in a recent English education publication echoes a feeling expressed by many headteachers and teachers with whom we talked:

> *My teachers could not work any harder, and yet new initiatives have come in at a rate of almost one a week. They feel they are not on top of anything at all. They feel they are trying to run up a down escalator.*
>
> **(Brace, 2000, p. 5)**

Whether perceived overload and stress are temporary bumps on the road or a symptom of the limits of schools to accommodate further demands is a serious question. We come back to it later in the report and





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will try to address it further in the third year of our study.

Turning to other aspects of the broader policy context of education in England, we note that it is rarely static, with many of the changes having the potential to affect the progress of the Literacy and Numeracy Strategies. The year 2000, for instance, saw developments related to the government's "modernisation of the teaching profession," with inter-related initiatives intended to ensure that the teaching profession attracts and retains high quality individuals and that the conditions under which teachers work are consistent with those needed in the 21st century. Currently, there is some concern that those conditions are not in place.

A growing and potentially serious teacher shortage, now experienced in many countries, is beginning to affect schools across England, particularly in and around London, where high housing costs add to the difficulties of recruiting and retaining staff. So far, government incentives such as "golden hellos" and living stipends for trainee teachers have had modest impact; additional government efforts are underway, with more planned for the future. Such shortages not only affect regular staffing, but also make it difficult to obtain the supply coverage necessary for teachers to take part in training sessions. Although so far the problems are affecting secondary schools more than primary schools, a continuing shortage could also jeopardise the progress made in cutting class sizes, a key promise of the government on taking office in 1997. Although England is not alone in experiencing teacher shortages, the approach to accountability in the late 1980s and early 1990s may have added to difficulties in making teaching an attractive profession.

The modernisation of the teaching profession is a major focus of the government. Several of the specific initiatives proposed and enacted have proved somewhat controversial. Government actions include establishing the General Teaching Council as a regulatory body setting criteria for professional practice, developing national standards for the teaching profession (based on work by Hay/McBer, 2000), beginning performance-related pay for teachers and implementing a performance management review scheme in schools. All of these initiatives, because they have considerable potential for influencing the conditions under which teachers carry out their professional responsibilities, have some relevance for implementation and further development of NLS and NNS.

As one of a variety of initiatives to increase the number of trained adults available to support pupils' learning, the government has provided funds and opportunities for the number of classroom teaching assistants to be greatly expanded. The teaching assistant role is being developed as a career option, with national standards and a national 4-day training programme, delivered by LEAs, that includes a focus on literacy and numeracy. Teachers are also receiving training on how best to use teaching assistants to support learning objectives for various groups of pupils. OFSTED commented (OFSTED Evaluation of NLS, 2000) that teaching assistants are often left without a role when the teacher is leading the class – the NLS website has provided guidance on the role of teaching assistants in the shared section of the literacy hour.

The National College for School Leadership began operation in September 2000 as a centre for headship and senior management training; the aim is to strengthen leadership

through nurturing, supporting and developing school leaders. Other initiatives may be needed as well, given what some data suggest is becoming a difficult situation with regard to recruiting senior staff (Howson, 2000).

Beyond these topics and issues specific to education, the Strategies are inevitably influenced by the broader policy context. For example, social pressures such as those caused by poverty are critical; research consistently shows that children's academic achievement is strongly related to various measures of family socio-economic status (e.g., West, Pennell, West & Travers, in press). The current government has, from the beginning of its term in 1997, stressed the need of dealing with the "long tail of under-achievement," with pupils who are disproportionately from families and communities suffering from poverty. There is evidence that the United Kingdom has greater social inequalities than most European countries, although less than the United States (Seymour, 2000). Acknowledging the necessity of addressing this situation, the government is expanding programmes such as Sure Start (funded through the Secretary of State for Health) and other initiatives intended to address child poverty. The number of Sure Start programmes will double by 2004 to reach "a third of all children aged under four living in poverty" (Hansard, 10 November 2000).

## NLS and NNS as Policy Levers: Successes and Issues

This chapter has outlined and summarised developments during 2000 in connection with the Strategies as national policy levers. In general, we hold to the positive conclusion reached in our first annual report – NLS and NNS are addressing the factors that the international literature on large-scale reform has identified as important.

### STRENGTHS: EVOLUTION, EXTENSION AND SUSTAINABILITY

Viewed from the perspective of the knowledge base about large-scale reform, the policy developments related to the National Literacy and Numeracy Strategies continue to be in line with what would be suggested from the international literature. At the central policy and planning level, the year was marked by *evolution* and *extension* of the Strategies, as well as by progress toward *sustainability*. Now well into implementation and, to some extent, becoming an accepted and central component of primary schooling in England, NLS and NNS are adding to, as well as drawing on, the knowledge base concerning education reform.

The early momentum has continued as the Strategies have evolved, with a consistent vision that is now supported by more targeted objectives and messages developed in response to performance data and feedback from the field. The work has been extended, with the establishment of the Foundation Stage and the links to initial teacher training institutions, and now, the launch of the Key Stage 3 initiatives. Developments such as increased policy consistency and coherence, continued emphasis on capacity building, and attention to the broader context of schooling will contribute to sustainability, although the question of whether and how changes are sustained cannot of course be answered for some years.

These strengths come through clearly from our study and observation of the Strategies during the year 2000. At the same time, several difficult issues emerge from the

examination of NLS and NNS central developments, particularly in juxtaposition to the international literature. Such issues would not accurately be described as weaknesses, since in no case is there an obvious direction or solution. These are more accurately seen as dilemmas coming out of a successful first implementation phase. We highlight issues related to manageability, central and local roles and the national targets.

## ISSUES: MANAGEABILITY, CENTRAL AND LOCAL ROLES AND NATIONAL TARGETS

### *Manageability*

There are two aspects to the question of manageability – national management structures and school workload or overload issues. Because of extension into ITT and into Key Stage 3, the number of Regional Directors has now increased considerably, resulting in the need to restructure into a layered system. Clearly the Strategies have had a positive impact; because of this impact, the approach is being expanded. The new organisation will likely be more efficient in dealing with the broader responsibilities. There is a possibility, however, that with institutionalisation and continued growth, the flexibility and rapid problem solving that have been characteristic of the national directorate could be jeopardised.

Manageability, in the sense of overload, is becoming an issue at the school level, not only in England but also in many other countries engaged in large-scale reform. The problem is not so much with NLS and NNS alone, although planning and learning new skills have been and continue to be time-consuming. The larger issue is with the total burden created by a constant stream of reform initiatives and changes, with what people in schools and LEAs speak of as "initiative overload." It is difficult to disentangle the effect of the Strategies from this larger context, at least from the perspective of those on the receiving end of new policies and initiatives.

### *Balancing Central and Local Roles*

How can DfES find and maintain the appropriate balance, now and in the future, between central direction and local initiative? Over the last year, DfES and NLS and NNS have emphasised local capacity building through training, networking and sharing good practice. Yet at the same time, central direction and production of resources (such as centrally designed training and classroom-ready materials) have continued and even increased, although these are often in response to local requests. Although DfES is committed to local autonomy, the ever-expanding policy web makes this more difficult to attain. Is there sufficient scope for local input and adaptation to suit unique local circumstances?

We have noticed a potential "Catch-22"[1] with NLS and NNS. The senior leaders in DfES and in the Strategies are highly committed, highly knowledgeable and apparently almost tireless in their efforts. The materials they produce are excellent, as are most of the training programmes. Paradoxically, the consistency and high quality of their work may create dilemmas when it comes to relinquishing ownership. There is a danger of inadvertently creating dependence by providing so much classroom-ready material, particularly in the current context of pressures of accountability, expectations of ever-improving performance and some sense of overload in schools. Such dependence on the centre could come at the expense of nurturing local initiative and problem

[1] *The term, referring to an inescapable double bind, was introduced by J. Heller in his 1961 novel, Catch-22.*

solving. In the long run, this possibility may be the greatest danger to establishing school cultures that can sustain growth and innovative problem solving far into the future.

On the other hand, this is not the only perspective on the question of central control versus local initiative. Some LEAs (and a few schools) indicate, apparently with considerable justification, that they are unreasonably constrained in the scope of what they can do. Others express this sentiment but have not demonstrated that their judgement about what is needed is necessarily superior to what comes from the centre. With regard to schools, both headteachers and teachers often express relief that they have finally been given workable and successful tools. In other words, they are often happy to take advantage of additional support (in the form of the frameworks, resource materials, examples of lessons and learning activities) to better cope with the pressure (of the national tests, OFSTED inspections, imposed targets and high workloads).

The issue is not a matter of choosing between central direction and local initiative. Both are required for a national education system that will meet the needs of all children across diverse regions of the country. The challenge is to develop a dynamic model, building on a clear national vision and standards, but with sufficient scope for LEAs and schools to adapt and create as needed. In many cases, LEAs and schools are capable of making decisions about how best to organise, provide training and allocate resources to achieve the objectives and realise the vision. At the same time, those that are not yet at this stage need to draw on expertise and additional resources, and will also need to be monitored more closely. Although many would agree with such a formulation in principle, and this seems close to the DfES approach, the difficulty comes in making judgements in specific cases about how much and what kind of central planning is appropriate.

*The National Targets*

We have identified and discussed possible risks of focusing on a single indicator to measure the success of a large and complex initiative. The evidence to date suggests that NLS and NNS are avoiding many of these dangers, but caution is in order. We recognise that there are other indicators of the progress and success of the Strategies, such as HMI ratings of teaching and assessments of Regional Directors and others, as well as information from formal surveys and informal feedback from the field. However, the most prominent measure is the Key Stage 2 assessment. In particular, the national and high profile target is couched as the percentage of children at Level 4 or above. Is there a risk that seeing Level 4 performance on Key Stage 2 tests as an entitlement for all children could become a relentless focus on reaching the targets? Test preparation and "teaching to the test" may be more attractive as additional improvement becomes harder to achieve, an inevitable circumstance as the easier changes are made.

Because of the high political profile of both education and the Strategies, DfES is constantly balancing short term and long term objectives. The government is caught in a dilemma – although test scores represent only short-term results, increases help ensure political support and funding for the essential capacity building work over the longer term. The situation, already difficult, is likely to be made more so by the fact that the closer performance levels get to the target, the harder it will be to continue the improvement (Linn, 2000).

# Chapter 3: Value for Money in the National Literacy and Numeracy Strategies

**Highlights**

- Central government has provided about 5% additional funding in support of NLS and NNS.
- It is difficult if not impossible to sort out just how much money schools and LEAs are investing in Literacy and Numeracy beyond the funds provided by DfES.
- There is tentative evidence that additional spending for Literacy and Numeracy has provided good value for money.
- Resources have been divided between supporting longer-term capacity building and support for immediate improvement in test results. The appropriate balance between these purposes requires more discussion.
- Emphasis on a single public outcome measure gives a limited picture of education reforms.
- Although the additional investment is substantial, it has still resulted – partly by design – in uneven allocation of resources across schools, with much of the initial effort focused in a relatively small number of schools. This pattern is now changing; however, high-need schools and communities may always need a larger share of the resources.

## Background

An appended paper to our report last year outlined a conceptual frame and approach to the assessment of value for money in the National Literacy and Numeracy Strategies (Levin, 1999). The framework was carefully constructed from an analysis of related literature and noted the practical and conceptual difficulties in doing value for money assessment in education as well as the very weak body of literature on which one might draw in determining what would be good value.

We suggest that the determination of value for money can be considered as a formula in which new resources applied to the purpose

are taken as a proportion of the previous resources for the same purpose, and the increased outcomes are taken as a proportion of the previous outcomes. In the case of NLS and NNS, that formula might be read as:

$$\frac{\text{Gains in achievement}}{\text{Previous achievement}}$$

*as a ratio of*

$$\frac{\text{Additional resources for literacy and numeracy}}{\text{Previous resources for literacy and numeracy}}$$

*= Value*

For example, we might get 5% more outcome for 10% more funding, for a ratio of 1:2, or we might get 1% more outcome for 20% more money, for a ratio of 1:20. Of course this simple formulation hides all the difficulties in determining the value of each of the terms, as illustrated later in this chapter.

While the formula is plausible, we do not have a good basis for determining what would be a satisfying result. An important question in assessing value for money is what level of return should be expected from additional funding. Should we expect 10% more money to produce 10% better outcomes, or more than that, or less than that? As indicated in last year's paper, there is nothing approaching an adequate theory of productivity in education that could guide resource allocation decisions. We lack the base of evidence that would be needed to construct such a theory, and there is vigorous dispute even on the general question of the importance of additional resources in improving achievement (Vignoles et al., 2000). Our theory of improvement as outlined in Chapter 1 includes dimensions that might be affected by additional resources, but that also require more than money to move them forward. This balance between financial and non-financial inputs is characteristic of human services, and is the main reason that economic analysis is so difficult in these fields.

One consideration in looking at the impact of resources might be that given the theory of marginal returns, each succeeding quantity of money should be expected to produce less impact. Once basic funding requirements are met, the impact of each additional amount is likely to decrease. Moreover, our last year's report reviewed evidence on education reform showing that many large innovations, even with substantial resourcing, have had little or no lasting impact on pupil outcomes.

However an alternative view, which also has research support (e.g., Odden & Busch, 1998; Kelley, 1999) would be that small investments can have disproportionate effects if used wisely in that they can catalyse changes in the larger system. Both views could be applicable to making a judgement about the impact so far of NLS and NNS, since the Strategies are connected both to overall increases in effort and to improving the efficiency of existing efforts.

These questions are complicated by the arbitrary nature of the starting point. It is easier to produce achievement gains when initial achievement levels are low. The higher the starting point, the harder it is to get improvements and the more expensive one might expect the improvements to be. Some evidence from international comparisons suggests that the achievement levels in Britain for literacy and numeracy a few years ago were not particularly good (OECD, 2000). Whether they were low enough so that improvement would be readily possible is another matter.

The same would be true of initial resourcing. International comparisons of spending are fraught with difficulty given differences in cost structures and purchasing power. However the evidence indicates that Britain's per-pupil spending, prior to recent increases, was significantly lower than countries such as Canada or the United States (OECD, 2000). With a lower base, incremental spending is more likely to be linked to better outcomes.

## Determining the Outcome Side of the Formula

Three of the four terms in the value for money formula are relatively easy to define. The achievement outcomes for literacy and numeracy have been defined by the Government as the proportion of pupils achieving the appropriate standard on the national test at the end of Key Stage 2. (We discuss later the limits of this single outcome measure as a representation of real literacy and numeracy skills.) 1998 could be used as the baseline year for this purpose, since implementation of NLS began that autumn. Gains in achievement would be the increase in the percentage meeting the target as a proportion of the baseline. The full results have been reported in Chapter 2. However those of most interest to this analysis are as follows:

| Year | Percent of pupils meeting the standard | |
|---|---|---|
| | Literacy | Numeracy |
| 1998 | 65 | 59 |
| 1999 | 71 | 69 |
| 2000 | 75 | 72 |

These results show an increase of 10 points (or 15%) in two years in Literacy and of 13 points (22%) in two years – but 3 points (4%) in the year since full implementation – for Numeracy. These data should be treated cautiously, as discussed a little later.

## Determining the Level of Previous Investment

The calculation of previous resources for literacy and numeracy is also relatively easy to make with some simple assumptions. DfES estimated the total cost of primary education in Britain in 1998-99 at £6.75 billion (DfES, 2000). English and mathematics are typically at least 40% of the school day, and teacher time allocations are an excellent proxy for total resource allocations because teacher salaries are by far the biggest single component of education spending. It is reasonable to assume that costs other than teaching (support staff, administration, supplies) could be allocated on approximately the same basis, so that one could estimate the ongoing cost of providing literacy and numeracy education in the schools in 1998–99 at about 40% of total spending, or £2.7 billion. This figure could easily be out by £200 million or more, but even a change of that size would not substantially alter the conclusions.

Note that the value of pupil and parent time and effort is not included in the formula, even though there is good reason to think (Levin, 1994) that both of these are vital factors in shaping achievement. We know that pupil effort and family support are important, yet we rarely include them either in our models of improvement or in our analysis of costs and outcomes. This lack, as was noted in our previous report, is typical of cost analysis in education but nonetheless an important missing element.

## Determining Additional Investment

The more difficult determination is what to include in the category of additional and re-allocated resources for literacy and numeracy. In last year's report we suggested that the resources being used to achieve the Strategies' goals could be put into three categories:

- New resources allocated specifically to the Strategies.
- Existing resources reallocated to literacy and numeracy from other functions or activities.
- Existing resources that were previously and continue to be used to support literacy and numeracy.

These resources are applied to the Strategies at four levels – national (DfES and other central agencies), LEA, school and family (pupils and parents). At each level, resources can be new, reallocated or ongoing.

The question is which of these are to be counted as additional. Two possible answers can be given to this. From the Government's point of view, a reasonable argument could be made that only the *additional resources provided by central government* ought to be included. If the efforts of DfES are able to lever additional investments from other sources, those additional investments can be seen as part of the success of the project, and should not be treated as an additional cost.

Another possibility is to include all the *additional resources provided for literacy and numeracy not only by government but also by LEAs and schools*. The argument would be that the additional central government resources by themselves did not create the new results, so a true assessment of value-for-money requires taking into account all the relevant resources.

Neither of these approaches would assess the total cost of producing the new outcomes. To do that it would be necessary to include not only the additional spending by DfES, but also reallocated and ongoing spending by LEAs, schools and others.

The table on the next page outlines the elements in the matrix of resource types and system levels.

*Additional Investment by Central Government*

Based on 1999–2000 data we estimate the additional cost to central government of the Strategies to be in the area of £125-130 million per year. This amount is made up of:

- The Standards Fund allocations to Literacy and Numeracy (in some cases 50% of the published figures and in other cases 100%), totalling £115 million.
- The running costs of DfES related to the Strategies of about £3 million.
- The costs of infrastructure for NLS and NNS, provided by the Centre for British Teachers (CfBT), at about £8 million.
- Additional funds provided to central agencies (TTA, OFSTED, QCA) in direct support of the Strategies, estimated at less than £2 million.

This amount does not take into account the provision of about £100 million in one-time money for the purchase of materials, primarily for Literacy. It is also the case that

the use of funds has changed to some extent from year to year.

The total amount of £125–130 million is just under 5% of the total estimated expenditure for primary literacy (including English) and mathematics of £2.7 billion.

The expenditure of an additional 5% has so far produced gains in the proportion of pupils reaching the required standard at the end of Key Stage 2 of 4%–22% depending on the subject and the period of time. An increase in the target outcome that is significantly greater than the additional investment certainly suggests good value for money. This is especially so since the literature on education change indicates that even large innovations often fail to produce significant and lasting effects.

This optimistic conclusion must be tempered by several important cautions. First, there is no real body of evidence against which to compare this return on investment, and certainly none involving a project with the scale and scope of NLS and NNS. We have no basis for knowing what a good result is in terms of additional outcome for additional spending.

## DEFINING THE RESOURCES FOR NLS AND NNS

| Level | New resources | Reallocated resources | Ongoing resources |
|---|---|---|---|
| • National | • National<br>• Standards Fund<br>– Literacy, Numeracy<br>– other programmes<br>• Running costs for DfES for NLS and NNS | • Other programmes whose funding can be used to support the Strategies | • Ongoing work of DfES related to literacy and numeracy |
| • Central agencies<br>• (OFSTED, QCA, TTA) | • OFSTED<br>– special inspections<br>• QCA<br>– additional tests and support materials<br>• TTA<br>– additional work to support the Strategies | | • Ongoing work of agencies related to literacy and numeracy |
| • LEAs | • Matching funds to Literacy and Numeracy bids<br>• Other additional staff or operating costs | • Staff time and support services reallocated to Literacy and Numeracy<br>• Resources from other related programmes used to support NLS/NNS | • Ongoing operating costs related to Literacy and Numeracy<br>• LEA overheads |
| • Schools | • Additional staffing, professional development and materials costs | • Resources from other related programmes used to support NLS/NNS | • Ongoing operating costs related to Literacy and Numeracy (staff time, materials, etc.) |
| • Family and community | • Purchases of books and materials | • Time diverted from other activities to support Literacy and Numeracy learning | • Parents' and pupils' ongoing efforts re: school learning |

Second, it is important to state again that given the early stage of both Strategies, these data can be taken as indicative only. A couple of years of implementation do not provide a sufficient basis on which to reach any firm conclusion. The well-known Hawthorne Effect would lead one to expect an increase in achievement in the first year or two of a new initiative. Linn (2000) has shown that testing programs generally tend to show increased results over the years as the system gets used to the test, but that such increases do not necessarily represent genuine increases in learning. Moreover, testing results in England were increasing prior to the implementation of the Strategies, and a number of other initiatives, such as school inspections, class size reductions or curricular changes might also have had an impact on these results. As shown in Chapter 2, science results have increased more than English and mathematics despite the absence of an equivalent Strategy and investment.

While the initial data give grounds for optimism, it will be essential to reassess the situation in another two years when the outcome data will be more robust. It will also be important to look at a wider range of indicators than a single test result to determine if true learning outcomes are improving.

*Total Additional Investment in the Strategies*

Estimating the additional investment in literacy and numeracy from all sources is difficult for several reasons.

First, it is not clear what central government resources beyond the direct support already described should be considered as supporting Literacy and Numeracy. A number of other programs under the Standards Fund have clear links to improved literacy and numeracy – for example English as an additional language or Education Action Zones. Many other activities supported by the Standards Fund, such as the training of headteachers, could also be seen as linked to improved outcomes in literacy and numeracy. Many of the ongoing functions of DfES and other central agencies are also quite relevant to improving literacy and numeracy. As discussed in Chapter 2, many national initiatives in England – OFSTED inspections, support for new curricula, changes in teacher education, SEN support – indeed, almost everything connected with primary education could be argued to contribute to literacy and numeracy outcomes. In many of these areas there have been additional investments over the last few years. The move to reduce class sizes in primary school was presumably expected to result in better outcomes. Additional general funding to schools could also be regarded as being at least partly an investment in literacy and numeracy insofar as it might be used to employ more staff, provide more support services, purchase more materials, and so on.

Second, it is not clear what 'new' resources LEAs and schools have actually invested in the Strategies. Except for summer schools and booster classes, the Standards Fund bids required LEAs to match the money from the central government. However in practice these resources come from a number of sources. Some are real increases to education budgets from the LEA. Other amounts come from other external funds available to LEAs such as EAZ, school improvement, Single Regeneration, private sponsorships and so on. These resources would, however, have been available to schools in any case and so are not 'additional' in the same sense as new budget allocations specifically for the Strategies. LEAs and schools also reallocated existing resources to the Strategies. For example, in some cases,

people on staff already working on related issues moved to Strategy consultant positions. Some professional development funds used for Literacy and Numeracy were already in LEA budgets but allocated to other purposes. Our impression from all the data is that most of the LEA matching funds were either found from other external sources or redeployed from other budget areas.

The same situation would apply in schools. Most of the headteachers we interviewed suggested that the bulk of the resources for the Strategies came from LEAs and the Standards Fund. However almost all schools (90% of the headteachers in our survey and all those we interviewed) did report investing at least some of their own resources, primarily in areas such as professional development and purchase of materials. These investments would appear to be in the area of a few thousand pounds per year for a typical primary school.

The resourcing of the Strategies was only one part of each LEA or school budget process. In many situations a variety of other related initiatives were occurring at the same time so that one cannot disentangle the resources for them. Nor should one necessarily want to do so, since it makes good sense to pool resources from various sources to achieve common objectives. Schools are trying to cope with a wide range of pressures and initiatives, and they do not necessarily distinguish where one starts and another stops. Where local authorities provided overall budget increases to schools, some of that general increase undoubtedly went to support literacy and numeracy, either through dedicated staff or through general support such as more teachers or support staff. The net effect is that at all levels some considerable expenditures, while not targeted to the Strategies, did in fact support the purposes of the Strategies.

The problem of how to treat staff time is another complication in determining the cost of the Strategies. There are good grounds for believing that the amount of professional staff time spent on literacy and numeracy has increased. The Levačiç, Glover, & Crawford (2000) study reports an average of 7 hours per week of class time for literacy. Our survey data and interviews with schools also suggest that a large number of teachers are spending more than 5 hours per week on literacy. While only about half the headteachers surveyed responded that their own time commitment to literacy and numeracy had increased, about 90% of headteachers indicated significant increases in professional staff time for both literacy and numeracy. For Literacy, 58% of headteachers said that the increase in professional staff time had exceeded 15%, while for Numeracy this figure was half – 29%. Certainly teachers reported spending more preparation time and professional development time on the Strategies. Teaching assistants appear to have had more time assigned to supporting the Strategies.

Quantifying these costs would require some very large assumptions, and there is the additional problem of accounting for out-of-school hours of work by teachers, which are not usually costed. However even a small increase in hours by teachers – say 2 hours per week – would imply that a large amount of money in the form of teacher time had been shifted into literacy and numeracy from other activities (as suggested by the data in Chapters 4 and 5). Across the country, one hour of teacher time would mean about 4% of the total teaching salary bill, or approximately £150 million (based on 60%

of total spending being teacher salaries). Alternatively, if literacy and numeracy were now accounting for 50% of total primary school effort instead of 40%, the additional cost would be another £670 million.

In practice, schools do not make a sharp distinction between resources for the Strategies and other work in related areas, making it very difficult to arrive with any confidence at estimates of school expenditures for the Strategies. In most schools governors and headteachers are attempting to deploy the total range of resources available to the total set of activities they feel are important. Especially because the average primary school in England is under 300 pupils, staff inevitably will have multiple roles. Because literacy and numeracy have always been important areas of attention in primary schools, a range of resources was already being devoted to them. At the same time, the situation for literacy and numeracy prior to the Strategies was quite variable, with some schools, especially those with serious achievement problems, already making special efforts in these issues.

Our very rough estimate as to the total additional cost of the Strategies is as follows:

| Source | Amount |
|---|---|
| Central government additional spending as outlined earlier | £130 million |
| New spending by LEAs – estimated at 20% of their matching contribution requirement | £10 million |
| Resources (including staff time) reallocated by LEAs from sources not previously used for literacy and numeracy – 40% of LEA contribution | £20 million |
| Resources (primarily staff time) reallocated by schools from other activities to literacy and numeracy – 5% of total primary school spending | £330 million |
| Total estimated additional cost | £490 million, or 18% of the total estimated cost of literacy and numeracy |

Using this figure gives a very different impression of value for money, in that the achievement gains are now much smaller in relation to the additional cost. The same cautions mentioned earlier also apply here. More important in this regard are the lack of other analyses to use in comparison and the points made earlier about our lack of understanding about the kinds of outcomes that might result from additional spending.

### *Total Cost of the Strategies*

A further relevant question is to try to estimate the total cost of the Strategies by all parties. Total cost would include not only new resources and resources re-allocated to literacy and numeracy, but also ongoing resources which had been, and continue to be, used to support literacy and numeracy by government, central agencies, LEAs, schools and families.

The vast bulk of the monetary resources for literacy and numeracy are in the ongoing work of the school. Levačiç, Glover and Crawford (2000) found that more than 90% of the cost of the Literacy Strategy was in the ongoing functions of the school, and particularly the time of teachers and support staff. It would be reasonable to argue, therefore, that the full cost of producing improved literacy and numeracy involves nót only the additional expenditures by DfES, but also all the expenditures of schools and LEAs – that is, the full £2.7 billion.

Our data also suggest, as already described, that teachers are putting more effort into literacy and numeracy, not only in terms of the quantity but also the quality of their work. Teachers, headteachers, consultants and LEA managers all report that many teachers are working more hours in an effort to meet the goals of the Strategies. Since teachers are not paid by the hour, an increase in hours of work would, in classic economic terms, result in an increase in productivity, in that more work is being accomplished without more money being spent. We raise elsewhere in this report our concerns about whether such extra effort is sustainable in the longer term. If it is not, as effort returns to normal, results may level off.

In all these analyses, as already noted, the efforts of pupils and parents are not accounted for. There is good reason to believe that the work of pupils and parents is critical to good outcomes. Some of the interview and case study data from a limited number of schools suggest that parents, particularly, have increased their knowledge of and interest in supporting literacy and numeracy skills for their children. However the survey data from teachers do not support this conclusion.

## Issues in Resource Allocation

Our study of resource allocation issues has raised several other questions related to policy and to implementation that DfES might consider as the Strategies develop. Several of these points also arose through our other data-gathering activities and are mentioned in other chapters.

### THE OVERALL LEVEL OF FUNDING

The Strategies have been given quite substantial levels of resourcing in comparison to most education reform programs. However when considered in light of the task of changing teaching and learning in all primary schools the allocations are modest. Even after two or three years, a significant number of schools with high needs will not yet have received intensive support. Many schools with satisfactory levels of achievement would have received very little direct input.

From the point of view of an individual school, the additional funds from the Standards Fund are small in relation to ongoing operating costs. A typical LEA bid might involve something between £1500 and £3000 per school for each of the Strategies, not including booster classes or summer schools (typically more per school for Numeracy than for Literacy on this basis). Half of this would have to be found by the LEA from existing or other resources. As already noted, our evidence is that much of the matching funds from LEAs would have been available to schools in any case so are not really new. Even with the very optimistic assumption that all the additional money directly reached schools, a school might be getting additional resources valued at about £3,000–£4,000 mostly in the form of consultant time and supply teacher coverage.

Yet a typical primary school with 250-300 pupils would already have a total budget of around £500,000 not including consultant time, so the incremental resources available for a school to use are quite small – under 1%.

This being said, we have already noted that evidence from a number of change projects indicates that small amounts of money can have significant impacts on schools if the money is used strategically. As other parts of this report show, this has clearly been the case with NLS and NNS in many schools. We are not suggesting that the resources of NLS and NNS are inadequate, but that even these large infusions of money are relatively modest when looked at school by school.

## PRIORITIES FOR ALLOCATION OF RESOURCES

From the beginning the Strategies have faced difficult problems of how to allocate available resources. LEAs vary enormously in size, geography and demography. The challenge of implementing NLS and NNS in a sparsely populated area with many small schools is very different from that in an urban centre. The number of schools with significant achievement deficits, the proportion of children with English as a second language, the degree of parent and community support, the availability of infrastructure such as libraries – all vary considerably.

LEAs and schools also varied in their starting point. Some LEAs need to improve performance by as much as 25% to reach their target while for others the requirement is less than 10%. Some LEAs had in place advisors in language or mathematics who could easily move into supporting NLS and NNS, while others did not. Some LEAs had a stronger history of support for curriculum and teaching than others. Some had related initiatives already in place while others were beginning from zero.

Even given the very substantial financial commitment to employing consultants and providing professional development, there is still across the country only about one consultant for every 50 schools for each Strategy. The approach chosen by DfES has been to try to put more resources where need was greatest, but also to try to have at least some reach into every school. However the results are, as might be expected, uneven. In authorities with many schools needing intensive support, some high need schools had to wait longer for substantial consultant input, although by the end of 2000, we believe that virtually all such schools have received direct support. In other authorities there may be more consultants in relation to the number of high need schools, but a large number of lower-need schools may get very little attention.

Further, the allocation of resources is largely based on the number of schools, but schools vary considerably in size. Funds were assigned to LEAs primarily on the basis of numbers of consultants and supply cover per school. However working with a school of 150 pupils is clearly quite a different matter than working with a school of 500 pupils. Although some funding formulae take account of number of pupils, DfES data show that some LEAs received 100% more support for Literacy consultants on a per pupil basis than did others and that these differences were partly but not fully related to differing initial achievement levels.

There is no right answer to these dilemmas. The resource allocation decisions made by DfES and the Strategy directorate are reasonable and defensible. However after two years of implementation it might be useful to

look at these issues again, especially in regard to the relative presence and impact of the Strategies in different kinds of schools. High need schools and communities may require considerably more than a pro rata share of support to show significant gains because the barriers often go beyond straightforward issues of teaching and learning in the classroom. It may be that as the Strategies develop it would be useful to shift resources even more to areas where need appears greatest. At the same time, this decision is connected to the issue of targets. If the official outcome targets for the Strategies were broadened beyond the current single indicator, there might be different decisions about how to allocate the available resources.

## CENTRAL DIRECTION AND LOCAL PARTICIPATION

At the beginning of the Strategies the resource allocation process was quite directive and formulaic. LEAs bid for what DfES had said it would accept rather than outlining what they might have preferred as an approach. For example, there were standard allocations of supply days for NNS and relatively standard allocations for the number of consultants across both strategies. This was a reasonable approach to the Strategies at the outset where DfES had a well-developed plan while understanding and commitment across schools and LEAs would have been highly variable.

Since then the Strategies have revised their resource use in light of their experience and feedback from the schools. As schools and LEAs have come to understand the Strategies more fully and as their commitment to them has increased, there has been more flexibility from DfES. Bidding has largely been replaced by standard allocations, and local bodies have been given more scope as to how resources are used. This process needs to continue. LEAs and schools have expressed their frustration that the resource allocation process is still too rigid and may constrain them from using resources most effectively to achieve the goals of the Strategies. We suggest the expansion of recent moves by DfES towards a process that both allows and requires LEAs to take on a greater role in planning for effective use of resources within a national framework. We are not suggesting that the DfES/national presence should diminish. There continues to be a need for a strong national input in terms of goals and best practices to achieve those goals. However, even within this frame, LEAs and schools could be given more opportunity to show how they might propose to allocate the available funds to achieve the objectives.

## THE MIX AND BALANCE AMONG APPROACHES TO BE SUPPORTED

The Strategies have embodied a well-defined theory of education change and improvement. The idea has been, as outlined in Chapter 1, to improve pupil outcomes by changing teaching practices to accord more closely with those approaches developed in the initial pilot projects. Teaching practice would change as a result of providing teachers with curriculum, materials, model lessons, professional development and various kinds of ongoing support. The result would be better outcomes for pupils from the same teachers and classes. As we noted in earlier reports, the Strategies probably represent the largest-ever attempt to create change through an approach centred on building teacher and school capacity. The resources devoted to this work have been, in our view, well used. Work to build capacity should certainly continue. As other chapters show, much remains to be done before the ideas fundamental to the Strategies are truly absorbed in a lasting way across all schools.

At the same time, our evidence suggests that there may need to be some reallocation within this envelope. For example, the emphasis on mutual learning and dissemination of best practices across schools and LEAs probably needs to be given more importance once there is more good practice to share. Some of this shift is already occurring as consultant time and professional development activity move from initial understanding of the Strategies to a more nuanced discussion of what is required to sustain progress.

As the Strategies have unfolded, an additional substantial amount of money has been allocated to supplementary teaching of pupils through booster classes and summer programs. In 1999-2000, £64 million was allocated to these latter purposes compared to about £55 million for the teacher change/school capacity approach. This decision may have been appropriate in terms of helping a significant number of pupils improve their Key Stage 2 results and, in the case of summer schools, make a more successful transition to secondary school, although we do not know whether these programs were effective or not. If these investments are to be continued, it might be desirable to look at an experiment in which pupils were randomly assigned to these additional programs so as to assess whether they are as efficacious or more efficacious than changes in the regular program. We do know that these allocations to summer schools and booster classes have been seen by at least some people in schools as a diversion of energy from the Strategies' main purpose in that they seemed to be much more about short-term test results than about longer-term school capacity.

An additional issue has been the timing of some announcements about additional resources available for particular purposes. It has been more difficult for everyone to make effective use of resources when they are suddenly made available well into a school year. People do recognise that these shifts are an exigency of government finance, and sometimes unavoidable, but resources that appear without adequate time for planning are likely to be used less effectively.

Finally on this point we draw attention again to the relatively small resource allocation to family literacy and numeracy. A number of schools noted the positive impact created by sharing materials and information with parents. Research would also suggest that increased parent and family support could be highly efficacious. It might well be desirable in the next phase for a larger share of resources from the Strategies to be directed to developing family literacy and numeracy, as well as strengthening parent engagement where it is low. However, given the concerns about overload that we raised in Chapter 2, we stress that this task cannot simply be added on to the many demands already made of schools.

## THE EFFECTS OF THE TARGETS ON RESOURCE ALLOCATIONS

The official and public focus of the Strategies has been on a single criterion for success – the proportion of pupils reaching the approved standard on the tests. This criterion has had high political visibility and has been central to the target-setting and resource allocation process.

As a result of the targets, schools have given considerable emphasis on getting pupils who are currently below the criterion to that level. It is certainly reasonable to focus resources on

those pupils with high levels of need. However we suggest that DfES continue to broaden the discussion of success. Some of the pedagogical reasons are discussed in several other chapters. However, there are also statistical reasons for concern about using this single measure of outcomes. A single indicator does not tell us, for example, very much about the distribution of scores among pupils. It is theoretically possible, though it has not been the case in England (QCA, 2000), that the number of pupils hitting the target could go up while overall achievement remained flat or actually decreased because pupils above or well below the standard did not gain at all. Also, the more pupils who reach the target, the more likely it is that increases in the single goal are a poor proxy for real achievement, since we would then have no information on the actual changes in achievement for those above the target, which is most pupils.

We note that internally, and more recently externally, DfES is already using a broader analysis of the measures of impact. These include not only the proportion of pupils reaching Level 4, but also the increase in the proportion at higher levels and reduction in the proportion at lower levels. Other DfES material, including the recent green paper, puts forward reducing the disparities between schools and LEAs and ensuring equitable progress for both genders and various ethnic groups as important goals. The recent attention to Key Stage 3 also presents an option to consider longer-term progress as an outcome. If teachers in Years 7 or 8 were finding pupils better prepared that would be a positive outcome from the Strategies. Success at age 11 might be judged by success at age 14 or 16.

These more complex analyses seem to us to be useful and desirable. They now need to be communicated very clearly to schools and to the public so that all parties understand that meeting the 80% and 75% goals is not the only thing that matters.

## Conclusion

Our findings should be read recognising that the Strategies are still in their initial implementation and that there are only two years of outcome data since the implementation of the Literacy Strategy and one year since the full implementation of the Numeracy Strategy. This is not yet a sufficient basis for any lasting conclusions.

Nonetheless, our cautious conclusion to this point is that a relatively small additional central expenditure (in the region of 5% of the overall cost of primary schooling) has levered significant shifts in the use of ongoing resources in schools and LEAs. Test data so far shows gains in the percentage of pupils reaching the established standard, suggesting that the Strategies to this point have provided good value for money. That conclusion must be tempered by consideration of the many other factors that might also affect results, the narrowness of the outcome measure and the early stage of the Strategy implementation.

# Chapter 4: View from the Schools – Survey Results

**Highlights**

- Headteachers rated their own motivation and capacity for implementing both Strategies relatively highly.
- The aims of both Strategies were clear to headteachers and were consistent with their own views.
- Motivation and capacity were rated somewhat higher for NNS than for NLS.
- Teamwork on the part of staff (a willingness to help one another) helped in implementing the Strategies.
- Respondents agreed that the greatest changes have occurred in the teaching of mental mathematics as opposed to mathematics concepts, and in the teaching of reading as opposed to writing.

## Introduction

Chapters 4 and 5 examine the ways in which the Strategies are being received and understood in schools and LEAs. This chapter provides a non-technical summary of a survey of teachers and headteachers in a large, nationally representative sample of schools. The survey was intended to help answer these questions:

- To what extent and for what reasons are teachers and headteachers motivated to implement the National Literacy and Numeracy Strategies?
- Do teachers and headteachers have the capacities to implement the Strategies?
- What features of the situation or context in which school staffs work influence implementation?
- How have headteachers supported the implementation of NLS and NNS?
- In what ways and to what extent have the Strategies resulted in changed classroom practices?

- What relationship is there between teacher-reported changes in classroom practice and gains in pupil attainment (as measured by changes in Key Stage 2 results)?

- What do teachers report as the strengths and weaknesses of the Strategies?

In the following chapter (Chapter 5), we examine these same issues through the conversations that we have had in the ten selected schools and their LEAs. Together, the two chapters begin to suggest how implementation of NLS and NNS is actually happening in the field.

## Framework

Motivation, capacity, and situation, as noted in Chapter 1, are key variables in a general model of employee performance that we are using to guide our understanding of "local challenges" – schools' responses to the National Literacy and Numeracy Strategies. In this chapter, we develop key aspects of this framework as specific survey results are introduced.

**Figure 4.1: Framework for Surveys**

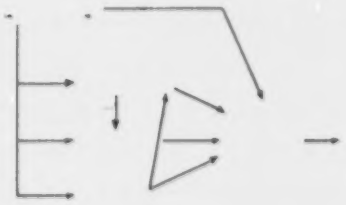

Figure 4.1 is an adaptation of our framework for the overall external evaluation summarised in Chapter 1. According to this general model, changes in teaching practice will only occur if all three factors (motivation, capacity and school situation) are favourable (Leithwood, Jantzi & Mascall, 2000a). In other words, weakness in any one decreases the likelihood of teachers adopting the reforms. We have added the dimension of leadership to our framework because we believe that it is an important dimension in understanding school change. The framework suggests that teacher motivation, capacity and the contexts or situations in which they work have a direct effect on school and classroom practices. These, in turn, help determine what pupils learn. Leadership practices (specifically, what headteachers do) have both direct and indirect effects on teacher practices, the indirect effects being realised through leaders' influence on teachers' motivation, capacity and work settings.

## Methodology

The external evaluation team contracted with NFER for a significant amount of the work entailed in collecting the survey data. Once the external evaluation team had developed the survey instruments, NFER was responsible for their distribution, collection and entry into a data file. This file then was returned to the external evaluation team for analysis and interpretation.

Two representative samples of 500 schools each were selected for the surveys, 500 receiving surveys about NLS and 500 about NNS. Both samples were selected at random from the NFER database of schools to be representative of the whole primary school population in terms of school type, national curriculum test results, region, and proportion of pupils eligible for free school meals. Pupil performance data for all schools in the sample were obtained from the Qualifications and Curriculum Authority (QCA). QCA provided end of Key Stage 2 results in English

and mathematics for the years 1997–98, 1998–99, and 1999–2000.

Two surveys were developed for each sample, one for headteachers and one for teachers. Responses to these surveys were analysed at both the individual and school levels using a variety of statistical procedures. Most survey questions asked for respondents' extent of agreement on a five-point scale. In this chapter, most of the data are reported as percentages of respondents who chose each point on the five-point scale (strongly disagree, disagree, undecided, agree and strongly agree). Each table displays responses to the Literacy Strategy (L) and responses to the Numeracy Strategy (N).

The response rates for NLS and NNS respectively were 64% and 63% for schools (that is, responses were received from either headteachers or teachers) and 49% and 50% for headteachers. The features of responding schools largely mirrored primary schools in the country as a whole. For teachers from all schools surveyed, the response rate was 20% for the literacy survey and 20% for the numeracy survey. These response rates rose to 32% and 33%, respectively, for teachers in schools from which there was at least one response.

The low response rate from teachers presented a problem. Although teachers in our achieved sample are very similar to the population of England's primary school teachers in terms of gender and experience, the decision was not to report the data from teacher respondents because the response rate was deemed too low to have sufficient confidence in the findings. The headteacher results are the basis for the reporting in this chapter.

## Underlying Trends in the Results

Two underlying trends emerge from the survey results. First, the responses of headteachers to the Strategies are positive. They indicated that they support the Strategies, are motivated to implement them, feel that they have the capacity to do so and, in general, see the school contexts as supportive of their endeavours.

The second trend is a tendency for respondents in the Numeracy survey to respond more positively than did those in the Literacy survey. In this case, the differences are most obvious in their perceptions of the extent to which the Strategies have influenced their motivation and capacity to implement changes and least for items related to the supportiveness of the school context. Although headteachers support both Strategies, the differences may be associated with such things as their initial level of subject level knowledge, the nature of the Strategies or the fact that NLS was in place first.

We now look in more detail at the responses, using our conceptual framework of motivation, capacity and situation (which we think of as organisational capacity at the school and LEA levels).

*Motivation to Implement the Strategies*

According to the external evaluation framework, motivation to implement the Strategies is likely to arise from four sources:

- perceptions of the relationship between headteachers' and teachers' own professional goals and the goals of the Strategies,

- beliefs about their own capacities to implement the Strategies,
- beliefs about how supportive of their implementation efforts is the school context in which they work, and
- the emotions they experience related to the Strategies and their implementation.

Table 1 provides percentage frequency distributions for the survey items associated with each of these sources.

**Table 1 Headteachers' Motivation to Implement the Strategies**

| | | % Responding | | | | |
|---|---|---|---|---|---|---|
| *Consistency with Personal Goals* | | *SD* | *D* | *U* | *A* | *SA* |
| 1. The aims of the Strategy are clear to me. | L | 0 | 10 | 18 | 55 | 17 |
| | N | 0 | 1 | 4 | 55 | 40 |
| 2. The aims of the Strategy are consistent with my own aims about teaching literacy/maths in my classroom | L | 0 | 7 | 16 | 61 | 16 |
| | N | 0 | 0 | 3 | 66 | 31 |
| 3. My staff have been involved in setting Key Stage 2 targets in this school. | L | 2 | 5 | 7 | 49 | 38 |
| | N | 1 | 5 | 7 | 51 | 36 |
| 4. My staff have been involved in setting curriculum targets for pupils in my class. | L | 0 | 3 | 8 | 52 | 38 |
| | N | 1 | 4 | 9 | 51 | 34 |
| 5. Helped clarify the reasons for implementing the Strategy. | L | 0 | 0 | 10 | 63 | 27 |
| | N | 0 | 0 | 4 | 66 | 30 |
| 6. Provided useful assistance to staff in setting short term goals for literacy/maths teaching and learning. | L | 0 | 2 | 7 | 61 | 30 |
| | N | 0 | 0 | 5 | 66 | 29 |
| 7. Given staff support, on an individual basis, to help implement the Strategy. | L | 0 | 1 | 3 | 62 | 34 |
| | N | 0 | 2 | 4 | 58 | 36 |
| 8. Encouraged staff to consider new ideas for their teaching of literacy/maths. | L | 0 | 1 | 3 | 60 | 37 |
| | N | 0 | 1 | 4 | 57 | 39 |
| 9. Demonstrated high expectations for teachers' work with pupils in literacy/maths. | L | 0 | 2 | 4 | 57 | 38 |
| | N | 0 | 2 | 6 | 52 | 40 |
| 10. Modelled a high level of professional practice in relation to the Strategy. | L | 0 | 2 | 7 | 55 | 36 |
| | N | 0 | 1 | 6 | 55 | 38 |
| 11. Encouraged collaborative work in literacy/maths among staff. | L | 0 | 0 | 5 | 53 | 42 |
| | N | 0 | 2 | 6 | 60 | 32 |
| 12. Created conditions in the school which allow for wide participation in decisions about the Strategy. | L | 0 | 1 | 8 | 59 | 32 |
| | N | 0 | 2 | 7 | 63 | 27 |
| 13. Helped develop good relationships with parents as part of the school's efforts to implement the Strategy. | L | 0 | 3 | 17 | 59 | 21 |
| | N | 0 | 4 | 16 | 61 | 20 |
| *Beliefs about the Context* | | | | | | |
| 14. The climate in this school reinforces efforts to have the Strategy implemented. | L | 0 | 2 | 7 | 62 | 31 |
| | N | 0 | 1 | 4 | 55 | 40 |
| 15. We have the flexibility that we need to implement the Strategy in a manner that is effective for staff and pupils in this school. | L | 1 | 11 | 11 | 54 | 24 |
| | N | 1 | 5 | 10 | 59 | 26 |
| 16. I feel confident that I am aware of the expectations in the Strategy associated with reading/mathematics. | L | 0 | 4 | 10 | 69 | 16 |
| | N | 0 | 4 | 4 | 72 | 23 |
| 17. I feel confident that I am aware of the expectations in the Strategy associated with writing. (Literacy only) | L | 0 | 7 | 14 | 64 | 16 |



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| | | % Responding | | | | |
|---|---|---|---|---|---|---|
| *Beliefs about the Context* | | *SD* | *D* | *U* | *A* | *SA* |
| 18. I am aware of the constraints that need to be overcome in implementing the Strategy. | L | 0 | 3 | 10 | 68 | 20 |
| | N | 0 | 1 | 10 | 69 | 21 |
| 19. We have access to the resources (e.g., people, materials) to help us implement the Strategy in my school. | L | 2 | 17 | 13 | 51 | 18 |
| | N | 2 | 12 | 16 | 54 | 16 |
| 20. Strategy training for headteachers has been very helpful. | L | 2 | 19 | 27 | 48 | 4 |
| | N | 3 | 7 | 24 | 51 | 16 |
| *Emotional Response* | | | | | | |
| 21. I hear useful feedback about my school's use of the Strategy (e.g., from LEA advisors, parents, etc.). | L | 1 | 13 | 16 | 56 | 14 |
| | N | 1 | 11 | 24 | 50 | 14 |
| 22. The Strategy has made my job more satisfying and engaging. | L | 12 | 30 | 34 | 21 | 4 |
| | N | 6 | 22 | 38 | 29 | 5 |

Headteachers believed that the aims of the Strategies were clear (see Table 1, item 1: almost 100% of headteachers agreed or strongly agreed with this statement). They also indicated that the aims of the Strategies were consistent with their own aims (item 2: 97% of respondents agreed or strongly agreed with this statement for the Numeracy Strategy and 77% for Literacy). Respondents generally reported positive beliefs about the context in which they were implementing the Strategies, with the majority indicating that they were aware of the expectations (items 16 and 17), had sufficient flexibility (item 15) and, to a slightly lesser extent, had access to the resources that were needed (item 19). About half of headteacher respondents agreed that NLS training for headteachers was very helpful; two thirds of the respondents expressed that view about NNS headteacher training (item 20).

Most headteachers (54% to 70%) agreed that they received useful feedback from those beyond the school about the school's use of the Strategies (item 21). Only 25% (literacy) and 34% (numeracy) of headteacher respondents agreed that the Strategy had made their jobs "more satisfying and engaging" (item 22).

The survey included questions (items 5 through 13) relating to "transformational" leadership, emphasising the capacity of the headteacher to engage others as leaders rather than merely directing the efforts of staff (Leithwood, Jantzi & Steinbach, 1999). Items related to nine dimensions or categories of practice:

- building school vision;
- developing specific goals and priorities;
- holding high performance expectations;
- providing intellectual stimulation;
- offering individualised support;
- modelling professional practices and values;
- developing a collaborative school culture;
- creating structures to foster participation in school decisions; and
- creating productive community relationships.

To foster teacher motivation, headteachers indicated that they used eight of the nine approaches identified in the survey, including helping clarify the reasons for implementing the Strategies, encouraging staff to consider new ideas for their teaching of literacy/mathematics and demonstrating high expectations for teachers' work. They were somewhat less likely to report a focus on developing good relations with parents.

### *Capacity to Implement the Strategies*

The survey items measuring headteachers' capacities to implement the Strategies focused on the extent to which opportunities were available to acquire relevant knowledge and skill, the possession of such knowledge and skill, estimates of success with the Strategies, and the effects of implementing the Strategies on teaching.

Table 2 indicates that a majority of headteachers agreed with survey items measuring capacity. This agreement varied depending on the item and was higher for the Numeracy than the Literacy Strategy. Specifically, headteachers were more likely to agree that the Numeracy Strategy benefited pupils (items 29 and 30) and increased the effectiveness of teaching (item 28).

Most headteachers believed that they were having success helping teachers implement the Strategies (Table 2: item 24: 83% to 87% of headteachers agreed or strongly agreed). Virtually all reported participating in all professional development opportunities for headteachers that have been provided by the Strategies (Table 2: item 27: 93% to 95% agreed or strongly agreed). Pupils were considered to have benefited most from changes in the teaching of reading as opposed to writing, and in the teaching of mental maths as opposed to maths concepts.

**Table 2 Headteacher Capacity**

| | | % Responding | | | | |
|---|---|---|---|---|---|---|
| | | *SD* | *D* | *U* | *A* | *SA* |
| 23. I have the knowledge and skill I need to implement the Strategy. | L | 0 | 10 | 18 | 55 | 17 |
| | N | 0 | 3 | 15 | 64 | 19 |
| 24. I have been successful in helping teachers implement the Strategy. | L | 0 | 3 | 14 | 66 | 17 |
| | N | 0 | 2 | 11 | 71 | 16 |
| 25. I have had adequate opportunities to clarify my role in implementing the Strategy. | L | 2 | 9 | 26 | 56 | 7 |
| | N | 1 | 11 | 21 | 62 | 5 |
| 26. I have had opportunities to practise and refine any new management skills required for implementing the Strategy. | L | 2 | 19 | 34 | 40 | 5 |
| | N | 2 | 23 | 32 | 41 | 3 |
| 27. I have participated in all Strategy opportunities that have been provided for headteachers. | L | 1 | 3 | 3 | 44 | 49 |
| | N | 0 | 3 | 3 | 47 | 48 |
| 28. Teaching in this school has become more effective as a result of the Strategy. | L | 1 | 9 | 15 | 58 | 17 |
| | N | 0 | 4 | 15 | 51 | 30 |
| 29. Pupils in this school have benefited from the: reading component of the Strategy writing component of the Strategy. | L | 0 | 5 | 19 | 57 | 18 |
| | N | 4 | 18 | 25 | 46 | 7 |
| 30. Pupils have benefited from the: mental maths component of the Strategy maths concepts component of the Strategy | L | 0 | 0 | 3 | 42 | 55 |
| | N | 0 | 1 | 15 | 58 | 27 |

### *The School Context in Which the Strategies Are Being Implemented*

While "capacity" is typically considered a quality of individuals, its meaning and importance as a collective or organisational property increasingly is being recognised. To acknowledge the school as a unit of change, for example, implies that its capacity is more than the sum of its individual members' capacities (see, for instance, Newmann, King & Youngs, 2000). For purposes of the surveys, two dimensions defined the school context or situation. One dimension included teachers' collective practices relevant to the Strategies, along with the physical and social infrastructure supporting such practices. The second dimension was the collective efficacy* of the staff. Teachers and schools with high efficacy are more likely to believe

* *Efficacy refers to the belief that one's actions will achieve the intended or desired result.*

that success is due to their efforts – in other words, that success results less from pupil intake and more from what the school actually does with its pupils.

Headteachers expressed overall agreement with survey items measuring both dimensions of the school context, and responses were essentially the same for both Strategies. In relation to collective practices, more than 90% of headteachers reported that staff were involved in teamwork for purposes of implementing the Strategies (item 31 on Table 3). Almost all agreed that staff members provided assistance to one another (item 33 on Table 3): more than 90% of headteachers agreed or strongly agreed.

Many headteachers (almost 40%) did not agree that their schools' physical layout enhanced staff ability to collaborate with one another. For headteachers themselves, what was most lacking was a network of headteacher colleagues they could draw on for assistance and advice when needed (item 37, Table 3); more than two thirds of headteachers indicated this to be the case.

**Table 3 Context or Situation – Headteachers**

| | | % Responding | | | | |
|---|---|---|---|---|---|---|
| *Collective Practices* | | *SD* | *D* | *U* | *A* | *SA* |
| 31. The staff in this school function as a team for purposes of implementing the Strategy. | L | 1 | 4 | 2 | 51 | 42 |
| | N | 0 | 2 | 3 | 54 | 40 |
| 32. The staff in this school build on one another's strengths in implementing the Strategy. | L | 0 | 3 | 6 | 51 | 40 |
| | N | 0 | 2 | 6 | 57 | 35 |
| 33. The staff in this school assist one another in implementing any new classroom practices required by the Strategy. | L | 0 | 3 | 5 | 51 | 41 |
| | N | 0 | 11 | 3 | 60 | 35 |
| 34. We have created structures in this school that allow teachers opportunities to collaborate about the Strategy with their colleagues. | L | 0 | 1 | 8 | 56 | 34 |
| | N | 0 | 3 | 7 | 59 | 31 |
| 35. The physical space in the school is conducive to discussion among staff members about literacy/maths teaching and learning. | L | 7 | 19 | 13 | 43 | 17 |
| | N | 7 | 16 | 16 | 47 | 15 |
| 36. School governors support our efforts to implement the Strategy. | L | 1 | 3 | 13 | 60 | 24 |
| | N | 0 | 6 | 12 | 60 | 22 |
| 37. I have a network of headteacher colleagues that has been useful to me in implementing the Strategy in this school. | L | 7 | 36 | 24 | 28 | 4 |
| | N | 7 | 35 | 29 | 25 | 4 |
| 38. My working relationship with school governors is useful in implementing the Strategy. | L | 3 | 77 | 17 | 53 | 20 |
| | N | 1 | 4 | 18 | 59 | 18 |
| *Collective Efficacy* | | | | | | |
| 39. All those in positions of responsibility feel a sense of responsibility for productively implementing the Strategy. | L | 0 | 4 | 6 | 53 | 37 |
| | N | 1 | 1 | 6 | 62 | 29 |
| 40. Teachers feel a sense of responsibility for the quality of literacy/maths teaching in their classrooms. | L | 0 | 1 | 1 | 46 | 52 |
| | N | 0 | 0 | 0 | 50 | 49 |
| 41. Teachers feel a sense of responsibility for school-wide decisions that influence their teaching of literacy/maths. | L | 0 | 2 | 11 | 61 | 26 |
| | N | 0 | 2 | 8 | 62 | 28 |
| 42. Parents are supportive of this school's efforts in literacy/maths. | L | 0 | 8 | 20 | 59 | 13 |
| | N | 1 | 6 | 18 | 60 | 16 |
| 43. Non-parent members of the community are supportive of this school's efforts in literacy/maths. | L | 3 | 16 | 47 | 29 | 5 |
| | N | 4 | 19 | 46 | 27 | 4 |

With respect to collective efficacy, almost all respondents indicated that teachers feel a sense of responsibility (item 40, Table 3) for the quality of classroom teaching. Fewer headteachers reported confidence in the supportiveness of parent and especially non-parent members of their school community (items 42 and 43, Table 3).

*Changed Practices by Teachers in Response to the Strategies*

The orientation to classroom practices adopted for purposes of the survey reflected two distinct lines of evidence – evidence about implementation processes, and evidence about the importance of time in accounting for pupils' learning.

A considerable body of evidence suggests that implementation of new policies and programmes seldom means, to those in schools, exactly what developers or advocates of those policies and programs have in mind. Indeed, early research on programme implementation argued that the ideal form of implementation was "mutual adaptation" (Berman & McLaughlin, 1977), a compromise between implementers' existing practices and those practices specified by new policies and programmes. Such adaptation often entails customising the new policies and programmes in light of unique features of the context and, in the process, making it more suitable for that context.

Based on this view of local implementation, one set of survey questions inquired about changes in the teaching of literacy and mathematics (without asking about the nature of those changes). Consequently, reported changes might range from the superficial to the fundamental. It is also important to acknowledge that the survey questions did not directly ask whether changes in practices corresponded to those practices advocated by the Strategies.

Although research about pupil time conceptualises it variously as allocated time, teaching time, and academically engaged time, increases in all these conceptions of time are associated with increases in pupil learning. The amount of evidence supporting this claim is both large and unambiguous. A second set of survey questions about changed practices asked whether more time was being spent on planning for, and actually delivering, teaching in literacy and numeracy in response to the Strategies. Either changed teaching practices or increased time could account for increased pupil learning.

The majority of headteachers reported changes in teaching practice in relation to literacy and mathematics, with respondents more likely to report that change had occurred in mathematics. Other results suggest that:

- More headteachers agreed that changes had been made to the teaching of mental mathematics as compared with teaching of mathematics concepts; 88 vs. 69% of headteachers agreed or strongly agreed with this (Table 4 item 45).

- Headteachers were somewhat more likely to say that changes had been made in the teaching of reading than the teaching of writing (Table 4 item 44).

- Headteachers agreed that increased time was now being spent teaching mental mathematics; 83% of headteachers agreed or strongly agreed (Table 4: item 47). Fewer agreed that more time was spent on teaching mathematics concepts (same items: 53% of headteachers).

- Headteachers were more likely to report increased planning time for literacy than for mathematics (Table 4: item 48), with uncertainty as to whether more time was actually spent teaching literacy in the classroom (Table 4: item 46).

- About 80% of headteachers agreed or strongly agreed that they regularly scrutinised pupils' literacy and numeracy work for signs of progress, and spent time observing the literacy hour or mathematics lesson in primary classrooms.

**Table 4 Changed Practices – Headteachers**

| | | % Responding | | | | |
|---|---|---|---|---|---|---|
| | | *SD* | *D* | *U* | *A* | *SA* |
| 44. Teachers in this school significantly changed their teaching practices as a result of the Strategy | | | | | | |
| in reading | L | 1 | 12 | 13 | 53 | 21 |
| in writing | N | 0 | 12 | 21 | 49 | 18 |
| 45. Teachers in this school have significantly changed their teaching practices as a result of the Strategy | | | | | | |
| in mental maths | L | 1 | 5 | 6 | 49 | 39 |
| in maths concepts | N | 1 | 9 | 22 | 46 | 23 |
| 46. Teachers in this school spend significantly more of their daily classroom time than they did before the Strategy teaching | | | | | | |
| reading | L | 6 | 30 | 17 | 35 | 11 |
| writing | N | 7 | 31 | 20 | 33 | 9 |
| 47. Teachers in this school spend significantly more of their daily classroom time than they did before the Strategy teaching | | | | | | |
| mental maths | L | 2 | 10 | 5 | 45 | 38 |
| maths concepts | N | 4 | 24 | 19 | 35 | 18 |
| 48. Teachers in this school spend significantly more time planning for literacy/maths teaching than they did before the Strategy. | L | | 5 | 3 | 28 | 64 |
| | N | 3 | 12 | 15 | 34 | 37 |
| 49. Teachers spend significantly more time assessing their pupils' work in literacy/maths than they did before the Strategy. | L | 2 | 14 | 16 | 48 | 20 |
| | N | 2 | 18 | 23 | 39 | 18 |
| 50. I routinely spend time observing literacy/maths hours in primary classrooms. | L | 2 | 11 | 7 | 62 | 18 |
| | N | | 8 | 11 | 66 | 15 |
| 51. I occasionally participate in teaching a literacy/maths hour. | L | 4 | 12 | 3 | 66 | 16 |
| | N | 4 | 12 | 4 | 59 | 21 |
| 52. I regularly scrutinise pupils' work in literacy/maths to ascertain progress. | L | 1 | 9 | 8 | 66 | 16 |
| | N | 0 | 9 | 13 | 62 | 16 |

## Conclusions

The "view from the schools" that is reported in this chapter is, in general, a positive one, with several areas highlighted for possible future attention. The survey results indicate that headteachers feel relatively high levels of motivation and capacity for implementing the Strategies. The school setting was considered to be equally supportive for both Strategies, with staff showing high levels of teamwork and willingness to help one another implement the Strategies. Headteachers agreed that the physical layout may not facilitate effective implementation of NLS and NNS, but believed that they had created decision-making structures and conditions for wide participation in decisions about the Strategies.

For numeracy, headteachers agree that the greatest changes have occurred in the teaching of mental mathematics. For literacy, headteachers are slightly more likely to report that more changes have occurred in the teaching of reading rather than the teaching of writing.

We look further at some of these findings when we report on our more intensive enquiry into implementation of the Strategies in ten selected schools across the country.

# Chapter 5 NLS and NNS in Practice: The View from Selected Schools

## Highlights

**Local Challenges**

*Motivation*

- Teachers and headteachers in the schools we visited were highly motivated to improve learning; most believe the Strategies have improved literacy and mathematics teaching.
- Headteachers and teachers were enthusiastic about both Strategies, Numeracy in particular.

*Individual Capacity*

- We believe, from interviews and observations, that some teachers need a deeper knowledge of content and pedagogy, and time to develop and reflect on new practice.

*Situation – Organisational Capacity*

- Most schools were developing as learning organisations, using management teams to broaden leadership and to take on long-term improvement initiatives; few had yet reached a high level of professional collaboration.
- LEAs have fostered growing networks and communities of practice among schools in a variety of ways that schools found helpful, including "clusters" of schools.

**Altered Practices**

*Focus on Literacy and Mathematics*

- Schools reported a greater focus on literacy and mathematics, with more focus on mental mathematics in daily lessons and a broader range of topics and genres, covered to greater depth, in literacy hours.
- The focus on literacy and numeracy was sometimes at the expense of other subjects, and of often valuable but less academic aspects of the school programme.
- Many schools were adapting the Strategies for their own school context; some were adhering tightly to the timing and format of the Strategies.
- More time was spent planning English and mathematics lessons but this was becoming more manageable as banks of resources accumulate and familiarity with the Strategies increases.

*Focus on Assessment*

- Schools were collecting assessment data (usually based on learning objectives) and using this to inform planning.
- Emphasis on Key Stage 2 results, especially in Year 6, was creating considerable 'test preparation.'
- Headteachers felt that having ever-increasing targets was unreasonable and put impossible pressure on schools and pupils.

*Sustainability*

- The organisation of material around clear learning objectives, a central feature of the Strategies, increasingly was guiding practice.
- Schools and LEAs believe that further development of local initiative is essential for the sustainability of the Strategies.

Changes in Learning

- Teachers reported that pupils were more able to deal with a variety of mathematics problems and written texts, and were more knowledgeable about the technical vocabulary of English and mathematics.
- Most teachers believed children were more independent and confident in their work.

## Introduction

In addition to the data from the national surveys of teachers and headteachers, we visited a set of selected schools to watch and learn about the implementation of NLS and NNS "up close." During 2000, we made initial visits to 10 schools (2 full days in all but one and 1 day in the 10th) and their LEAs. We talked to teachers, literacy and numeracy co-ordinators and headteachers in each school and observed literacy hours and daily mathematics lessons. In the LEAs, we talked to Strategy/line managers and in most cases, literacy and numeracy consultants.

In addition to the selected schools, we have had opportunities to talk to teachers, headteachers and LEA advisers from other settings, thus supplementing the data from the selected schools. We will return to each of the 10 schools for at least two days during 2001 and will visit the LEAs again as well.

At this stage, our data are necessarily incomplete and the conclusions tentative. We draw on our conversations with the people implementing the Strategies in the selected schools, to provide a beginning description of their experiences of the implementation and to identify emerging themes and issues for consideration in the data collection during 2001.

## Description of the Selected Schools

The OISE/UT team used the DfES database of schools in England to select a random sample of 50 schools, from which we intended to select a set of 10 schools varying in location, type of community, size of school and performance on the 1999 Key Stage national assessments. As the random sample did not include schools representing all relevant categories, we supplemented the pool with names of 15 additional schools. From this expanded pool, a set of 10 schools was drawn based on the 1999 primary school performance tables.[a] The set of 10 included schools ranging in size (from 115 to 475 pupils), in performance on the English and Mathematics Key Stage 2 assessments, in geographic location and in rural to urban type of community. Three schools declined the offer to participate (because they felt unable to give the time necessary), similar schools replaced them. The 10 selected schools were chosen to characterise typical schools in various settings and circumstances and to provide illustrative examples. They do not constitute a sample that would allow generalisations to the population.

*[a]We used the Primary School Performance Tables 1999 published in The Times Educational Supplement, December 10 1999.*





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These 10 schools offer a view of NLS and NNS in a broad range of circumstances and contexts. The group includes schools in difficulty and schools that are high performing. Some schools have received considerable outside intervention while others have received little or no additional support. The following table compares results from our pool of selected schools to the national averages for Key Stage 2 English and Mathematics assessments from 1996 to 2000.

| 1996 Year 6 Tests | 1997 | 1998 | 1999 | 2000 | 1996 to 2000 |
|---|---|---|---|---|---|
| English | | | | | |
| National Average | 56% | 63% | 64% | 70% | 75% +19% |
| Selected Schools | 46% | 60% | 60% | 63% | 77% +31% |
| Mathematics | | | | | |
| National Average | 53% | 61% | 58% | 68% | 72% +19% |
| Selected Schools | 50% | 57% | 59% | 63% | 72% +22% |

Despite much individual variability in the year-to-year results of the selected schools, the average scores for the group of 10 schools are generally similar to the national average scores[1] and show overall improvement from 1996 to 2000. While every school in the sample has increased its scores in English and mathematics since 1996, not every school has increased its scores since 1998 for English or since 1999 for mathematics. For the smaller schools in the sample the Year 6 cohort may have as few as 12 to 15 children and therefore, as we heard from many teachers and headteachers, differences between cohorts from year to year may be marked. It is also the case that, like many schools in England, a few of our sample schools began implementing aspects of the NLS prior to 1998 and aspects of the NNS prior to 1999.

## Local Challenges and Solutions: The View from Selected Schools

Overall, these schools provide a picture of the implementation of the Strategies as experienced by teachers, headteachers and pupils. For each of the schools, we are developing case profiles that will be completed by the end of the evaluation project. The quotes in this chapter have been drawn from these early case profiles to illustrate the issues that emerged during our visits. The selected schools have been assured that they will not be identified in any report, oral or written, that we make.

Many of the findings generally relate to both Literacy and Numeracy, but we have noted if comments referred to one or the other specifically. We have tried to describe how the schools have experienced the Strategies, drawing attention to themes that are consistent with the findings from the survey responses described in the prior chapter. Occasionally we highlight differences between what we heard from the sample schools and what we found in the survey responses.

This chapter has been organised using our framework for large-scale reform: we look in turn at motivation, capacity and situation,

[1] *The exceptions to this are the scores for selected schools in English, which are 10% lower than the national average in 1996, and 7% lower than the national average in 1997. Generally the smaller schools in the sample show greater year-to-year variability in their English scores than do the larger schools. For instance, two of these schools with relatively small Y6 cohorts obtained English scores in 1997 that were approximately 35 – 40% higher than their 1996 scores. The greater change in the English scores from 1996 to 2000 appears to be at least partially due to the greater variability in the year-to-year scores of these 2 schools.*

then proceed to describe reported changes in practice and changes in pupils' learning in literacy and numeracy. In fact, motivation, capacity and situation are very much inter-related and often a factor contributing to one will have an effect on another. During our analysis, it also became clear that we needed to make a distinction between the individual capacity of people to make changes and the capacity for change in schools and LEAs (organisational capacity).

## MOTIVATION TO IMPLEMENT NLS AND NNS

Our conversations in schools and LEAs corroborate the findings about motivation that emerged from the survey. There was general agreement that there is considerable motivation to focus on literacy and mathematics. Teachers told us that they were definitely spending more time on English and maths and that they were "following the Strategies," although often in adapted and personalised ways (as we discuss later in this chapter).

We heard about commitment, dedication to helping children learn and agreement with the Strategies. For these teachers, the aims of the Strategies fit well with their own goals.

> *Staff are highly motivated to help children learn. (headteacher)*
> *We want to improve standards. We want to produce a curriculum that fits the children ... I've got a very dedicated staff who are crawling on their knees to keep it going.*
>
> **(headteacher)**

> *As a Strategy I think it's brilliant and I think it was needed. The reason why I like it is because it says to you "Right, you have a warm-up, you have an introduction, you have an activity, you have a plenary." It tells you the objectives and it's giving the structure that you need.*
>
> **(teacher)**

In other cases, NLS and NNS have provided headteachers with a mechanism to challenge existing practices by introducing dissonance and confronting some longstanding beliefs. Headteachers identified the power of NLS and NNS to focus the work of the schools and motivate teachers to concentrate on literacy and numeracy. They said things like:

> *The initiatives are making people think and take stock.*
>
> **(headteacher)**

> *The Strategies were just what were needed in this school because a lot of children were slipping through the net.*
>
> **(headteacher)**

> *I have several "born again" literacy teachers in the school.*
>
> **(headteacher)**

> *The Strategies provide the framework for teachers to work within.*
>
> **(headteacher)**



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Teachers were generally positive about the Strategies and told us about the value of the Strategies in providing direction for their work.

*The 3-part maths lesson gives more focus; it's easier and more disciplined. The progression is known.*

**(teacher)**

*Literacy is helpful because it prevents teachers from sticking only to the areas that they feel comfortable teaching.*

**(literacy co-ordinator)**

Echoing the findings from the surveys, teachers were more positive about NNS than about NLS.

*Teachers who didn't like teaching maths have found Numeracy very useful; Literacy hasn't had the same effect.*

**(headteacher)**

Most concerns or reservations that were expressed were with portions of the Strategies, rather than the Strategies on the whole.

*Look at Key Stage 1 with the spelling. You've got to do all the blends, practically all at once and if somebody's away, that's it ... Covering all those blends in a very short time, I think, is going to be extremely difficult and I'm not sure that's really good practice.*

**(teachers)**

Some teachers did not see any need to change or felt that they could make the changes required without any additional professional development. This was particularly an issue for literacy when we asked about training needs.

*I already know what I need to know to do literacy.*

**(teacher)**

*I'm already doing all of the things in the Literacy Strategy.*

**(teacher)**

If teachers do not express an interest or a need for change, it may be because they have developed a good understanding of the Strategies and good classroom practices or it may be that they are unaware of their own needs and the possibilities for professional development. The distinction between motivation and capacity becomes blurred.

Some issues emerged regarding specific aspects of the Strategies that affected teachers' motivation. One general concern was expressed as the *uneasy fit between entitlement and differentiation (headteacher)*. In our school visits, we heard that teachers sometimes had trouble achieving a balance between the requirements of the curriculum and the unique qualities of their pupils. While it has always been the case that classes included pupils with a wide range of abilities, some teachers find that the emphasis on whole class teaching within the Strategies along with the recent push for inclusion can increase the difficulty of delivering learning objectives to all pupils. They said things like:

*You find yourself in class with special needs children totally unsupported and you just can't stretch yourself far enough to support them at that end and the high flyers at the other.*

**(teacher)**

*The government push on inclusion means all kinds of children are in a classroom together and the curriculum virtually tells you what words are coming out of your mouth. It becomes hard to strike a balance.*

**(headteacher)**

Some teachers also perceived the Strategies as somewhat inflexible. Although NNS was perceived in the beginning as less rigid than NLS and both have been relaxed during 2000, some teachers felt constricted in their practice, for a number of different reasons.

*Teachers feel they don't have the power anymore to actually make changes that they believe in. At the moment everybody is feeling it.*

**(literacy consultant)**

*We keep to the letter because we can't afford to take a chance in maths.*

**(teacher)**

*When you compare it to the Literacy Strategy, the Numeracy is much more flexible … [Our literacy co-ordinator] has put in a lot of work to adapt the Literacy Strategy to fit the small school requirements – so that it isn't so rigid.*

**(headteacher)**

Changes occur when there is awareness that something needs attention. Generally there was a consensus that change was needed and when this was the case, schools greeted NLS and NNS with some enthusiasm.

*There was a lack of mental agility in the children's mathematical work and there was a slump in the written work as compared to the reading. … So we knew that we needed to approach that. We've used the Literacy and the Numeracy to help us to tackle those.*

**(headteacher)**

However, when teachers and headteachers do not feel any sense of urgency or responsibility for change, or when they are so pressured that they cannot face the emotional and intellectual demands of major change, it is unlikely that the Strategies can penetrate beyond surface compliance. If teachers feel pressured to adopt the Strategies and did so out of compliance rather than any conviction about the possible value, the value may be limited.

*The teachers are doing the literacy hour as prescribed. They feel they have no choice. We have to do it.*

**(headteacher)**

Motivation to implement the Strategies is often complicated by the other pressures that impinge on schools. In some schools, we heard about urgency for change prompted by factors other than NLS or NNS – a poor performance on an OFSTED inspection, pressure to raise test scores and fear of public embarrassment. When testing, monitoring and inspections provide direction, focus and challenge, and when the resources to make changes are available, people may still feel anxious, but the feedback is seen as a useful impetus for learning. In some cases, headteachers may use recent OFSTED reports to justify changes to management and encourage the school to reflect on the need for improvement.

*Although the bad OFSTED report was a shock, the headteacher used it as a lever for change.*

**(LEA adviser)**

*Special measures "worked" but it was awful. We felt like we were under the spotlight and being questioned as professionals.*

**(literacy co-ordinator)**

*We couldn't believe it. They pointed out that we were part of the problem. It hurt. But we couldn't avoid it. We had to do something.*

**(headteacher)**

Some headteachers and teachers reminded us that changing the school, through the curriculum and teaching, is important but may not be enough. Making real gains in schools may include motivating the community and breaking the cycle of low expectations at home.

*This is an area where there has been a lack of motivation for generations – no family support for education.*

**(teacher)**

Although the demands of the Strategies themselves may not create undue stress, their implementation may be affected by a stressful context. Several headteachers expressed concern about what they saw as a tendency to blame schools for poor performance, as well as a never-ending series of policy initiatives and increasing pressure for accountability.

*Good teachers close to early retirement will leave because of the constant changes in government policies and being blamed for not achieving the government's targets.*

**(headteacher)**

*The pressure for accountability has gone far enough.*

**(headteacher)**

*The staff is happier about National Curriculum 2000 but it could be because after 10 years we've just become so exhausted that we just say "All right, here comes another one."*

**(headteacher)**

Several headteachers commented that the pressure of ever improving standards for schools and for pupils is not realistic or helpful. One headteacher expressed it this way.

*The LEA adviser said, "When you can prove that you're good, then of course, you can strive to be very good." But I'm not prepared to do that. The stress levels in the school involved in proving you're very good aren't worth it. … In the end, you strangle people. They can't do it. And you do it for children as well if you keep setting them targets and say, "Oh you've achieved this. Now you must achieve that." You've got to stop and say "Wow. You've achieved that and I'm going to give you more of doing that." And lo and behold, they go above that. From underneath. Not just from being pressured.*

**(headteacher)**

Motivation to change is an important part of implementing any new initiative. As issues and ideas come into consciousness for individuals and for groups, this awareness paves the way for decisions about the need to change. From our interviews and observations, we feel that people in schools are motivated to improve teaching and pupil learning in their schools and they see the Strategies as offering reasonable directions for changing practices in English and mathematics. At the same time, for some headteachers and teachers, the larger context in which schools operate is stressful, with high pressures for accountability and a multitude of initiatives coming from above.

## INDIVIDUAL CAPACITY

The ultimate goal of NLS and NNS is to enhance the capacity of teachers to teach literacy and mathematics to children so that every child acquires the fundamental building blocks of language and working with numbers. NLS and NNS have developed a range of approaches to build and enhance capacity (i.e., resources, training, consultant support and networks). In our visits, we asked about people's use of these materials and activities and about their confidence in their capacity to implement the Strategies. We observed several lessons in every school, but because our study is not evaluating teachers, schools or LEAs, we have no direct assessments of individual capacity.

### *Confidence and Competence*

Although some teachers, as we mentioned previously, did not believe that they needed to learn anything more, others commented on the impact that the Strategies were having on their confidence in their abilities to teach the subjects and use assessment/performance data to plan and adapt teaching.

*My maths skills are a lot sharper and my teaching is infinitely better since NNS. And my colleague [the numeracy co-ordinator] says her literacy teaching is much better than it was 2 or 3 years ago.*

**(literacy co-ordinator)**

*NLS and NNS have done wonders for our school. We are an inner city school and, quite frankly, our teachers didn't know how to teach these children. Now they have some techniques and feel supported.*

**(headteacher)**

*We monitor and plan using pupil work. Teachers are feeling that they can use the data to help children.*

**(headteacher)**

As schools move past the initial implementation of the Strategies, it becomes increasingly important that headteachers and teachers develop deeper understanding in several areas. They need knowledge of literacy and mathematics, as well as an understanding of how children learn. They need to adapt and deliver the Strategies in ways that are appropriate for the particular children in their schools and yet remain true to the underlying priorities. NLS and NNS recognise that a rigid adherence to the surface features of the Strategies without deep understanding of the content and the pedagogical principles is not likely to improve teacher effectiveness or pupil learning.

We saw the importance of this kind of understanding in our observations of a variety of literacy and mathematics lessons. Many teachers delivered their planned learning objectives while pitching their questions to pupils at just the right cognitive level to





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prompt learning while boosting confidence and motivation. Further, these teachers were able to make adjustments during classroom lessons as they took "readings" from pupils' answers to their questions; they were able to alter their teaching and their plans for the plenary part of the lesson based on that feedback. However, some teachers moved through their planned material without making the adjustments that might have brought pupils' attention more fully to the learning objectives for the lesson and seemed unaware of the pupils' varied understanding or engagement.

We also found clear differences in teachers' beliefs and attitudes about the changes in their classrooms as a result of the Strategies and in their understanding about the fundamental principles underlying them. Some teachers (and schools) had begun to develop teaching practices appropriate to the Strategies before their implementation. For these teachers, change in classroom practice as a result of the Strategies is more of a natural progression than a radical departure from previous practice, and their understanding of the fundamental principles of the Strategies may be a deepening of previously held principles.

> *It wasn't such a huge shock to this particular school. We had already done an awful lot of the prescribed work throughout literacy. ... I think we had thought about it and we were doing it. We'd worked out [parts of the Strategy] for ourselves because we'd actually started to look specifically at non-fiction writing before the Strategy came out.*
>
> (teachers)

Some teachers, however, may be unaware of their own learning needs or they may not fully understand the underlying principles of the Strategies. They may feel that they have made the changes required by adopting easily accessible features of the Strategies, such as lesson timing and sequencing.

This suggests a dilemma concerning the priorities for future training and professional development. If teachers are not knowledgeable about the subjects and the pedagogy that enhances and accelerates learning, they are likely to adapt the Strategies in inappropriate and ineffective ways. On the other hand, when teachers feel, for whatever reason, that they must focus on rigid compliance with the format of the Strategies, there is the possibility that they will lose confidence in their professional judgement and become less effective in their teaching. In addition to training, whether it is to deepen understanding of the content or the pedagogy, many teachers will need opportunities to consolidate the new learning that is required.

> *What they need is time to reflect on their practice and develop – and that comes from all the initiatives, everything to do with the Strategies, the assessment, everything, performance in the classroom – all have to do with quality of teaching.*
>
> (LEA consultant)

Although the practice is not common yet, teachers in several schools found it useful (although sometimes stressful as well) to observe in each other's classrooms and provide and receive constructive feedback.



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*School team leaders monitor and provide supportive feedback to teachers on classroom teaching and organisation.*

**(headteacher)**

*There is a culture of observing now. Teachers don't think anything about people coming in to observe. The staff are more open. They talk about things. They're prepared to say what works and what doesn't work.*

**(literacy co-ordinator)**

*Training and Resources to Date*

We heard a range of reactions to the training and resources that teachers have received through NLS and NNS. Some found the support to be valuable and enlightening.

*I didn't see a need to change maths teaching before the Strategy, but I did when I started the training.*

**(mathematics co-ordinator)**

*It is hard work but helpful. Teachers express relief that they now have concrete guidance.*

**(LEA adviser)**

Others found the training or the resources uninformative and sometimes identified the parts that they found problematic.

*The LEA consultant delivered the material exactly as scripted so there was no opportunity to ask questions or give feedback. I could have read the material just as easily.*

**(headteacher)**

We were somewhat surprised at how infrequently anyone mentioned one potentially valuable source of professional learning – leading mathematics teachers or expert literacy teachers.

Teachers in higher performing schools sometimes struggled if they had the materials but had not received any actual training.

*The consultant came in once, did a sample lesson, and talked to us as if we knew all about it. But we didn't.*

**(teacher)**

*I use the phonics and spelling material but I'm not sure I'm doing it right.*

**(teacher)**

Generally, the Numeracy training was rated more highly than Literacy training.

*Training given to staff has been quite good for Numeracy. Because it started a year after Literacy, there was more time to get it organised. Numeracy benefited from that.*

**(numeracy co-ordinator)**

*A lot of us felt like we knew more than the [literacy] consultant who was giving us the advice.*

**(teacher)**

*LEA Support*

Building and enhancing capacity is related to much more than training sessions, however. Teachers were appreciative of the role of the LEA consultants in supporting NLS and NNS, through training, additional courses, twilight sessions, resource sharing and so on. Teachers and headteachers were particularly





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enthusiastic about the in-school support they received from consultants and expert teachers.

> *Our teachers have observed a leading maths teacher teaching their children … For us it's been excellent because the teaching has been with our children.*
>
> **(headteacher)**

The need for in-school support is also recognised by LEA advisers and consultants.

> *You need to assess the children to know what to teach and it's the same thing with the teachers. You need to know what they're good at – and where the difficulties are.*
>
> **(LEA consultant)**

> *I believe that what will make the difference is the in-school support. It's translating it into 'my classroom for me with my children.'*
>
> **(LEA line manager)**

*Curriculum Target Setting*

Setting curriculum-based targets for teaching and learning, as opposed to purely numerical targets, is an activity that has been a strong focus within the Strategies and one with the potential to develop both subject knowledge and diagnostic skills for teachers. This practice is common among our selected schools, reflecting what we found in the survey. For instance, we watched an LEA adviser working with a numeracy co-ordinator to set curriculum targets and focus teaching by analysing pupil work. This process was "capacity-building" in action, as the co-ordinator responded enthusiastically and planned to use this kind of scrutiny of children's work in her own class and to provide support to other teachers in the school. Other teachers, some in schools with relatively low performance scores, told us similar stories.

> *We don't pay much attention to the DfES data because it isn't really helpful. But I do analyse children's work against the checklist of how they score the writing.*
>
> **(teacher)**

> *We bring examples of pupils' work, do our own assessments and use the data to regroup children.*
>
> **(teacher)**

> *We use our own assessments on an ongoing basis to give indications of progress. This used to be haphazard but we developed a pro forma and we use it to apply QCA standards to pupils' work. Then we pick things out of the Strategies to address.*
>
> **(mathematics co-ordinator)**

In fact, most of the schools we visited were making extensive use of their own assessment data to track the progress of individual children and Year group cohorts, to obtain a measure of "value added" by the school and to inform teachers' planning. Several co-ordinators spoke about using the information from their own and QCA assessments to inform teachers about the gaps in their teaching and in pupils' learning. These assessments were organised around the learning objectives of the Strategies.

## SITUATION OR ORGANISATIONAL CAPACITY

Our framework suggests that in addition to motivation and individual capacity, the extent to which teachers will change their practices in response to the Strategies will be

determined by the situation in which they work. It is useful to think of "situation" in terms of organisational capacity (Newmann, King & Youngs, 2000). We suggested in the first annual report that sustainable school improvement based on NLS and NNS is much more likely if schools and LEAs are able to operate as learning organisations with the capacity for continuous change and improvement. We report here on what we have learned to date about the situation in both schools and LEAs.

*Organisational Capacity: Schools*

Many of the selected schools were on their way to having the kind of internal organisational capacity that would serve them well in sustaining the momentum of change:

> *Staff meetings are much better now. We use them to talk about issues.*
>
> **(headteacher)**

> *All of the staff do some peer observations every term in English and maths.*
>
> **(headteacher)**

> *We are doing agreement trialling for English with staff. They look at samples of writing from each class across a range of abilities to try to develop "standards" for writing with agreement on strengths and weaknesses.*
>
> **(headteacher)**

> *The in-school co-ordinators are very experienced in their subjects. They know what to do and how to adapt the Strategies to the school setting.*
>
> **(headteacher)**

Several of the schools were using their school improvement planning process as an opportunity to broaden the base of leadership, outline aims for the school and establish a framework for what to monitor and develop. Management teams were working on organisational and planning issues, and setting core principles or aims for the school. Teachers were taking on the role of team leader for their school division, observing classroom teaching, making suggestions for improvement, and monitoring the use of assessment data for planning.

> *We want to develop as a self-reviewing school to make sure everything is up to date all the time, rather than 6 months before OFSTED comes in.*
>
> **(headteacher)**

> *Our school development plan identifies what is important to the school, what needs developing and how resources are going to be used to do what needs to be done.*
>
> **(headteacher)**

Some headteachers indicated that they used NLS and NNS as an opportunity to hire capacity by recruiting new staff who already had training and experience in literacy and numeracy.

> *There has been a high staff turnover in the last two years. I've hired new staff who have particular strengths in literacy and numeracy.*
>
> **(headteacher)**

On the other hand, we also heard from headteachers who felt that they were continually training teachers who then



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left for schools in less disadvantaged areas or where they could better afford housing.

> *We have a problem with retention, especially because of the cost of housing. Last year, four teachers felt they had to go where they could buy houses. So we're back to training NQTs.*
>
> **(headteacher)**

Some schools have successfully developed creative methods for attracting and keeping staff, offering greater job flexibility (job sharing, extended leaves, and so on) to compensate for difficult working conditions or expensive living arrangements. However, there will be a continual need for training because of high staff turnover in many schools.

Most headteachers and teachers that we spoke with indicated that teachers were more supportive of each other since the Strategies were introduced; *because the Strategies were new, teachers needed to work together* was how one teacher expressed it. The focus on curriculum objectives and assessment and planning has led many teachers to pool their resources for literacy and mathematics, and to share best practices with other staff. When schools are large enough, teachers do a lot of collaborative planning and curriculum setting with their Year partners.

> *The thing that's really helped is that we've worked very openly as a school on things and have shared ideas. The openness among the staff is very good. We've got good collegial support.*
>
> **(teacher)**

Although this kind of pairing is not possible within small schools, we did hear about two small schools arranging to meet together to allow teachers to work with a colleague teaching the same Year group.

In many schools, headteachers and teachers commented on parents' support of both Strategies. As with most other factors, we noted from our interviews that there is considerable variability among schools in the extent to which they are able to fully engage parents in the learning of their children. Unfortunately, this is harder to do in those schools that need it the most. Many schools have well-attended family mathematics and literacy nights with their parent communities. Such events help in educating parents about the purposes and strengths of the Strategies. We frequently heard comments from teachers that parents were unhappy because their children were *no longer being heard to read every day*. In some schools, teachers listened to individual children read outside of the literacy hour whenever they could – often during recesses and lunchtimes. This was an added pressure in an already overcrowded timetable, one that NLS staff would say is unnecessary if shared and guided reading are done effectively and appropriately in the literacy hour. In some cases, schools have successfully engaged parents in listening to their own children as part of the normal homework routine, supported by communication with teachers for guidance and feedback, thereby sharing some of the responsibility for the child's learning. Unfortunately, in some communities, active engagement in children's educational well being may be difficult to establish and sustain, and, too often, interest appears to decline as children move from Key Stage 1 to Key Stage 2.

Just as our selected schools differ in terms of size, location and community setting, so too they differ in the extent to which they have developed as learning organisations. Some therefore will have further to go to firmly establish shared expectations of improvement and for a few, the whole culture of the school may need to change. Some schools already have a strong culture of improvement. In others, the hiring of new staff in leadership roles and the establishment of new organisational structures have set schools on a course for improvement. For a few, a reduction in outside support would likely result in a return to past practices and perhaps even "cocooning" into their private world to avoid the intervention of meddling outsiders.

*Organisational Capacity: LEAs*

We saw evidence of growing networks and communities of practice that extended beyond individual schools.

> *The LEA has a working group of headteachers to provide a forum for becoming familiar with material from DfES, discussion and learning.*
>
> **(LEA adviser)**

> *Coordinators in the LEA meet regularly to look at books and review materials.*
>
> **(literacy co-ordinator)**

> *We have a headteachers' conference planned in our cluster group to develop self-help groups and planning initiatives for writing.*
>
> **(headteacher)**

> *Teachers of Key Stage 1 and Key Stage 2 from several schools come together to share ideas and let each other know what's working well.*
>
> **(numeracy co-ordinator)**

Many people expressed appreciation for LEA support in such networking efforts:

> *The LEA advisory service is very useful; very quick to pick up new initiatives, send out information and organise courses.*
>
> **(headteacher)**

There were also suggestions that LEAs could share their knowledge and learn more from other LEAs, especially with so many inexperienced new advisers.

> *The LEA likes to do things in its own way and perhaps doesn't learn as much from other authorities as it could do. They could share their knowledge more with other LEAs.*
>
> **(headteacher)**

One of the most troublesome issues associated with the local situation occurs when there is movement of teachers in and out of a school or the profession. High mobility leads to discontinuities in training, while the ongoing support role becomes more complicated and difficult. This is increasingly the case, for instance, in two of our sample schools, where recruiting and retaining teachers is becoming a serious problem. Given the likely changeover in teachers and local concerns over a pending shortage there will be a continuing need for extended training and support if all teachers are to be competent and confident about NLS and NNS.

*There are some weaknesses in staff training because of staff moving in and out. They may have missed out on training because the school they are in is at a different stage than what they need.*

**(literacy co-ordinator)**

The principle of intervention in inverse proportion to success has sometimes caused a problem for schools making rapid progress. Just when they saw themselves being successful, they lost the additional resources that supported their work – before they had an opportunity to fully embed new practice. Moreover, in many schools, especially smaller ones, variability in test results from year to year leads to fluctuations in the amount and kind of support they receive. This situation now has been alleviated somewhat by central funding to provide some consultant support and supply coverage time for all schools.

Both schools and LEAs acknowledged that DfES was serious about the Strategies and had provided both support and pressure to make NLS and NNS key focal points. There was *a lot of money (headteacher)*, resources and materials, and support from the LEA consultants and advisers. Although the time pressure was seen as problematic, being able to add adult support in the schools relieved the pressure somewhat and *made life easier (headteacher)*.

## Altered Practices

The Strategies both aim at improving pupil learning through altering the daily practice of teachers in schools. Throughout our site visits, we heard how NLS and NNS had influenced practice and could see evidence of how the Strategies were guiding the work in schools.

### IMPACT ON LITERACY AND MATHEMATICS TEACHING

Virtually all the lessons we saw followed the format of the literacy hour or the three-part daily mathematics lesson. In our classroom observations lessons were generally characterised by pace, a focus on learning objectives and focused attention from pupils during the introductory and main teaching parts of the lessons. According to teachers and headteachers, the teaching of English and mathematics had changed as a result of NLS and NNS in a number of ways – more time, more emphasis and more focus, but also an increase in the perceived quality of the teaching.

*Giving children learning experiences that are not woolly.*

**(headteacher)**

*I see a real synergy between elements of language.*

**(headteacher)**

*We used to use badly copied maths worksheets, but no more. Now we do a daily maths lesson, following the 3-part lesson plan.*

**(headteacher)**

*We used to set tasks and supervise children. Now we have more class teaching, more guided reading – a more formal focus on teaching*

**(teacher).**

NLS and NNS have also affected planning, increasing both the time spent but also the nature of planning and how it is used to guide teaching.



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*I spend more time teaching and more time planning and monitoring. 10 years ago I had 150 pages of planning for all subjects; now I would have that just for maths.*

**(teacher)**

*We have taken on board the medium term planning almost in its entirety and found that more than workable. ... We've sat down at the end of this half-term and said 'Right. What didn't work for us? What do we want to change?' and we actually want to change very little of it. So we've been able to take on board almost all of that medium term planning from the Strategy for all year groups.*

**(teacher)**

One of the important benefits of the increased emphasis on accountability is that schools are now focusing on collecting good assessment data and using it for curriculum planning. Teachers are paying attention to the learning objectives for the curriculum and are assessing whether or not children have met the appropriate objectives for their level. This information then leads teachers to make adjustments in their programming, to "fill in the gaps" in each child's learning in a more systematic way then was done previously. The Strategies are well suited to the focus on assessment for learning because within each the curriculum is organised around a clear set of learning objectives. Teachers are encouraged to set curriculum targets as a way of differentiated teaching and learning for pupils. The organisation of material and the focus on teaching are one of the central features of the Strategies and may prove to be their most important contributions to school improvement in England.

Although NLS and NNS seem to have had a dramatic influence on practices in the schools we visited, the long-term effects are not yet known. As the implementation progresses, we will continue to monitor these changes with particular attention to the worry of one headteacher that:

*There is so much in the Strategies in terms of expectations and content, I worry that teachers will skip over consolidation of the basics.*

## ADAPTATIONS TO NLS AND NNS

Implementation of curriculum policy will almost inevitably involve some adaptation as teachers incorporate new approaches into their practice. Headteachers and teachers told us how they were adapting and changing the Strategies to suit their pupils and the local context.

*We haven't stuck slavishly to the work in the Numeracy training packs... We learned from Literacy to pick out what is important for our school. The oral mental starter was a fairly new idea so we've had to look at that very carefully and plan for that.*

**(headteacher)**



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*The SENCO and I are meeting to look at children with special needs within the literacy hour. I have a child who is going for a Statement who went to Reception for 2 literacy hours a week and that seemed to really benefit him. He was interacting more during that shared session ... It gave him that boost, that confidence and that self-esteem really, whereas he or a couple of other children in my [Y3/4] class wouldn't really interact during the shared session. Would they benefit from being with a classroom assistant, working on their own shared session, or would they benefit, if we could do it, from going into a shared session in another class?*

**(literacy co-ordinator)**

*We base the work around a theme and it's as cross-curricular as possible; when possible, those themes are carried into literacy and numeracy classes.*

**(literacy co-ordinator)**

LEAs were also contributing to adaptations.

*The LEA is encouraging variations in planning and is developing half-termly plans to be used as guides, not straitjackets. They are encouraging teachers to do planning in blocks larger than a week and to add a variety of teaching techniques, like drama and story telling.*

**(literacy co-ordinator)**

Pupil writing has been a focus of considerable attention in all schools. Nearly every teacher and headteacher we interviewed mentioned that there was not enough opportunity for extended writing within the structure of the literacy hour. In all sample schools an extra hour or more per week was used as a period for extended writing, usually in addition to the five literacy hours that would normally occur. Some schools used the extra writing period as one opportunity to integrate topics across the curriculum; children might write a passage, for instance, that related to the current topic in history or science. Most literacy co-ordinators we spoke with welcomed the new initiative on Grammar for Writing as an approach intended to improve writing, although no teachers had received training or materials by the time of our last 2000 visit, early in October.[12]

*In both Key Stage 1 and Key Stage 2, pupils are expected to write for some time but there is no time allowed for good quality extended work in the Strategy.*

**(headteacher)**

*Then I do 'project' literacy for an hour, which is usually based on something we're actually doing as our project. So we're doing something on plants and growth at the moment – so I might do some poetry about trees or some appreciation work.*

**(teacher)**

If adaptations are inevitable, the issue previously raised concerning the balance of central and local roles becomes critical. The development of local ownership may well be the key to the sustainability of the Strategies. We heard various perspectives from schools and LEAs on this issue.

[12] *We visited most schools again in February 2001; that data will be included in our 3rd annual report, covering the calendar year 2001.*



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*People are allowing the Strategies to develop and evolve in schools. The school staff are in a better position to judge what the school needs. The Strategies need to be adapted and amended.*

**(literacy co-ordinator)**

*In my view it won't be sustained if we continue to be told what to do, how to do it, when to do it and so forth. And I think it will hold back some of the creativity that could emerge locally.*

**(LEA numeracy line manager)**

The danger with local adaptation, however, is that key principles of the reform may be lost if teachers are not fully cognisant of the rationale behind various components of the Strategies. If teachers do not have adequate subject knowledge or if they modify to bring new practices closer to those they already feel comfortable with, the impact of the Strategies will be diluted. Central direction and support helps curb this tendency by continually reinforcing the core principles, while professional development can deepen and extend teacher knowledge. With the teaching of writing, for instance, whereas schools tend to focus on the need for extended time for pupils to write, NLS leaders are more likely to emphasise the need for intentional teaching of writing, with guidance and feedback taking place *as children actually write*, rather than later.

## IMPACT ON OTHER SUBJECTS

One of the common, often unintended, consequences of focusing policy on one part of the curriculum is that the time and energy that is devoted to it comes at the expense of attention to other subjects. People in the schools frequently told us how NLS and NNS were squeezing other areas of the curriculum.

*They are encroaching on time so other subjects get squeezed out – design technology is gone.*

**(teacher)**

*Other subjects got lost. History, geography, music and art were all squeezed out. But QCA schemes of work and the new National Curriculum presents the challenge of bringing them back in.*

**(teacher)**

The National Curriculum 2000 documents have been prepared to alleviate the overloaded curriculum and provide guidance for teachers in providing a balanced program. Schools are also beginning to do more cross-curricular work, such as closely linking work in the literacy hour with topics studied in other subjects. We will continue to monitor this situation as schools gain more experience with the revised curriculum and with the Strategies.

## HOW ASSESSMENT SHAPES PRACTICE

In our site visits and interviews, we observed various ways in which the strong emphasis on pupil assessment data in England influences what happens in schools. Two general trends relate to the impact of the national assessments (SATs) and the increasing use of other data beyond the SAT scores.

Setting numerical targets, specifically Key Stage performance targets, is required by Educational Development Plans and is not directly related to the Strategies; nonetheless it is an inevitable part of the context of implementation. For many of the schools





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we visited the government's emphasis on achieving 2002 Key Stage targets is seen as unhelpful. Most of the schools expressed concern about reaching their Year 6 targets and many believe there is an expectation centrally that every school will show steady improvement at least in 2001 and 2002. Messages about flexibility in cases of cohort variability in small schools, for instance, do not always seem to have been received at the school level.

One of the most pervasive changes in practice described by teachers and headteachers was the intentional focus on the SATs in Year 6 to ensure that children did well. In many schools, such activity included more homework based on SATs, practising on past papers, using mock exams and so on. Teachers used these approaches especially when they were worried about league tables or OFSTED and when they were sceptical about the power of the Strategies to actually increase the scores.

*In year 6 I'd go away from NNS and teach to the tests. I'd teach them how to answer the questions that they are likely to have on the test.*

**(teacher)**

*I focus attention on those bordering levels 3 and 4. I can gain an extra 5 marks if I get the handwriting up. Just the technique.*

**(teacher)**

When pushed, however, to give more detail about what they did for SAT preparation, many teachers described (for English) having children focus on letter writing or planning and writing stories. One teacher talked about delaying the teaching of poetry until immediately after the SAT tests in May, on the assumption that poetry would rarely appear on the SATs. These behaviours would not be seen as undesirable for teachers of Year 6 pupils, nor would they be seen as serious departures from the NLS framework. The issue of "teaching to the test" is one that we will continue to investigate in future school visits, but teachers may in fact depart less from the Strategies than their initial reports would suggest.

The schools and LEAs used data from the National Assessment in a range of increasingly sophisticated ways – in particular to identify groups of children who may need additional support in order to make sufficient progress. Schools also made use of other data, such as that available through the use of the QCA optional tests for Years 3, 4 and 5. Unlike the preparation for the Year 6 assessment, most schools had their children sit these optional exams "cold" – with no preparation whatsoever. These data may give a better indication of the effects of the Strategies on pupil learning than the high stakes Key Stage 2 test results.

Most of the sample schools we visited are now developing and using their own assessment data for curriculum planning and for target setting. The information they gather also enables them to track the progress of individual children and cohorts year to year, providing them with value-added estimates based on individual and cohort performance from baseline. In most cases, the focus was on children's work – assessing workbooks or other examples of what children have produced.

*We have developed record sheets that will be used to track pupils' progress from reception to the end of year 6. We hope to look at individual pupils' progress and to look at cohort progress as well.*

**(headteacher)**

*We are beginning to work on recording assessments in a quick and easy way so that it will inform the next bit of planning.*

**(numeracy co-ordinator)**

## CHANGES IN THE HEADTEACHER ROLE

The introduction of NLS and NNS has had a significant impact on the role of headteachers as well. Many have found the Strategies useful in getting staff to make necessary changes.

*The headteacher got hold of NLS and NNS and used them as a frame for work in the school. It gave them focus and direction.*

**(LEA adviser)**

*The Strategies have been key and provided the framework for staff to work within.*

**(headteacher)**

Some were torn between collaborative decision-making and being directive, not so much as a direct result of the Strategies but in response to the pressure from a difficult OFSTED inspection and the need to make changes quickly.

*I've become much more directive. I was always democratic and consultative but that had to change. Now when staff say "but," I respond "But nothing, we have 6 months to do this if we want that black cloud to go away."*

**(headteacher)**

A common theme we noted among several headteachers was that they no longer feel they have expertise in literacy and mathematics.

*As a head, I and quite a few heads, feel deskilled. Somebody else is now the literacy expert.*

**(headteacher)**

*I used to do some maths work and some literacy work. But I have got to say that I now feel deskilled. My local colleagues, we all feel the same.*

**(headteacher)**

By way of contrast, approximately 80% of the headteachers responding to our survey indicated that they at least occasionally participate in teaching a literacy hour or a daily maths lesson. This suggests an interesting issue for follow up in the next year of our data collection. To what extent do headteachers act as leaders for literacy and mathematics teaching for their staff? To what extent do they feel the need to have expert subject knowledge to do this?

Headteachers spoke enthusiastically about the value of the NLS headteacher conferences held during the 2000 autumn term. Participants appreciated the overview of NLS and the suggestions about managing the Strategy more effectively through precise use of curriculum targets. Several, however, expressed frustration with what they saw as

the predominantly top-down nature of the day. The conferences sparked the organisation in many LEAs of follow-up sessions that will no doubt provide the much-desired opportunity for a focus on local needs.

## Changes in Learning in Literacy and Numeracy

We asked people in the selected schools whether or not they saw changes in pupil learning in literacy and numeracy and to give their explanations for any changes that they were seeing. Most could articulate the kinds of improvements they were seeing and linked these to elements of the Strategies.

*Certainly in the Numeracy, in the very short time of doing it, the standards have risen in this school. There is a genuine rise in standards.*

**(numeracy co-ordinator)**

*Children's writing has improved because of the focus on genres.*

**(teacher)**

*Children are more independent in their work. They are learning good life skills, for example, more organisational skills*

**(teachers)**

*Children are more confident. This is because they can talk about their work … Children are now more able to tackle a problem which they've never seen before. They can work their way around it with a certain agility. So while I didn't see a particular need for this Numeracy when it was introduced, I think there's been a benefit.*

**(numeracy co-ordinator)**

*They can manipulate the information they've got. They're more conversant with it. They'll sit down to read any kind of text really – they'll give it a go – and they'll give you their opinion about it. They are far more confident in that than they would have been. It's hard to measure that.*

**(literacy co-ordinator)**

*They know far more of the technical terms … I think the overall knowledge is far greater.*

**(headteacher)**

*For the Numeracy Strategy, we are finding this concentration on mental arithmetic is paying dividends. And there is a correlation between their mental maths and their written and other areas of their maths work.*

**(headteacher)**

Such reports of improved learning were backed up by higher Key Stage 2 results in the schools. Although there seemed to be general agreement that pupil learning had increased, not everyone we spoke to was convinced that the Strategies were having as large an impact on pupil learning as the Key Stage 2 results would suggest. Many teachers and headteachers also suggested that some of the increase in test scores would be due to test preparation or practice effects (as schools increasingly have children take optional QCA tests for their own assessment purposes). Others referred to the targeting of booster classes to children who are close to the target of Level 4 but might not make it without the extra support.

*Oh their scores are better – certainly they're better. But do the children know any more? No. It's because we've taught them how to jump through hoops.*

**(teacher)**

*There are problems around booster classes – and again of course the booster classes are just focusing on these SATs tests … It's all about results and it's not about those children who are left in Level 3 … It is that focus – it's about politics.*

**(headteacher)**

Although we often heard that children had become more independent and confident in their work, a few respondents thought otherwise. One teacher, for example, observed that children were becoming less able to orchestrate and manage projects on their own, a change she attributed to the high level of teacher direction and organisation associated, in particular, with the literacy hour.

## Conclusions

### LOCAL CHALLENGES

*Motivation*

We conclude from our visits to schools that teachers and headteachers are highly motivated to improve learning and to develop more effective ways of teaching. Most of the people that we spoke to believe that the government was right to focus on improving standards in literacy and numeracy. However, some of our interviewees, in schools and in the larger educational community, suggested that the larger context of education in England, especially the sheer number of initiatives, could hinder long-term improvements and sustainability. Most believed the Strategies were useful ways of delivering the curriculum in English and mathematics and most teachers want to use them, in whole or in part, in their classrooms. However, teachers and headteachers often expressed a sense of frustration that unique school or community needs are not sufficiently taken into account by the national directorate and worried about local priorities being sidelined by the push for performance results.

People were positive about both Strategies, but somewhat more enthusiastic about NNS than NLS. Many respondents indicated that Numeracy works better because the government had *a year longer to get it right*. Others believed NLS has a more difficult task because it involves new content and a broader range of material for many teachers. Teachers may have felt more secure in their knowledge and ability to deliver English curriculum and less secure in their knowledge of mathematics teaching, therefore welcoming what NNS offers.

*Individual Capacity*

While headteachers noted increased confidence and competence among their teachers, many felt that some teachers need a deeper knowledge of content and pedagogy and time to reflect on and develop new practice. Our observations of literacy hours and daily mathematics lessons led to similar conclusions, reinforcing the appropriateness of the NLS and NNS emphasis on increasing subject and pedagogical knowledge. Teachers seemed to be at many different points on the implementation continuum. Although most people we spoke with found both literacy and numeracy training very useful, a few reported either that the training repeated what they already knew or did not prepare them adequately for their own classroom setting. Most headteachers and teachers found LEA



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support was generally good; in-school support from consultants and advisers was seen as particularly helpful. Most schools were developing their use of assessment data to inform planning, through their own assessment instruments or through their analysis of pupils' results on optional QCA testing. These changes were linked to the increasing use of learning objectives (or curricular targets) to guide all aspects of teaching.

*Situation – Organisational Capacity*

Most of the schools we visited were taking important steps to develop as learning organisations. In many cases, management teams broaden the base of leadership and take on long-term improvement planning and monitoring. There was generally an increase in collaboration – pooling resources, sharing planning, supporting efforts to try innovative methods in the classroom. However, high staff turnover and the need for continual training of staff, especially in disadvantaged areas or areas where the cost of living is high, created a lack of stability that made it difficult to sustain collaborative networks and to take on long-term improvement planning.

Most schools reported that parents are supportive of the Strategies, with a few concerns. Although all schools have worked to involve parents in the literacy and maths learning of children, they have experienced varying degrees of success. The challenge is often most difficult in schools where the need is greatest.

We found through our interviews that LEAs have fostered growing networks and communities of practice among schools and offer support to schools in a variety of ways that teachers and headteachers found helpful. These include conferences, meetings and surgeries, in-school support (demonstration lessons, observation and feedback to teachers), development of resources, support for planning and assessment, dissemination of information and course offerings.

## ALTERED PRACTICES

We observed that implementation of the Strategies has altered teaching practice to some degree in all classrooms in the sample schools. Virtually all lessons we saw followed the format of the literacy hour or the three-part mathematics lesson. Most teachers and headteachers reported a greater emphasis on literacy and numeracy since the Strategies have been implemented. Teachers reported they are much more focused on mental maths during the daily mathematics lesson and that they are covering a much broader range of topics to greater depth in literacy lessons. The increased number and role of teaching assistants has meant that many children are receiving more adult attention and direction. In the view of those we interviewed in schools and LEAs, this focus on NNS and NLS is frequently at a cost to other subjects, and, in the view of many, to valuable but less academic aspects of the school programme.

For a few teachers, at this point, changes still involve relatively superficial ones in lesson organisation. So, for instance, the structure of the literacy hour or the 3-part daily maths lesson may be literally adhered to, but the deeper understanding of content and pedagogy may still be lacking. Or the teacher may make changes in these structures, but without an understanding of the rationale and principles behind the Strategies. In these cases, the effects on pupils' learning may well be minimal.

More time was spent on planning, particularly for literacy. Many teachers felt they did not have enough time to

adequately prepare for classes and that their teaching was less effective because of that. Many acknowledge, though, that the initial year of implementation was the most difficult and that planning is becoming more manageable as banks of resources accumulate and familiarity with the Strategies increases.

As a result of the government's pressure for accountability, there was a strong focus in many schools on Key Stage 2 tests, especially in Year 6. Many teachers spent considerable time doing 'test preparation' with their pupils, although further questioning seemed to indicate that such activities were not far removed from what the Strategy frameworks would suggest.

Many headteachers have changed their management style as a result of pressure to improve results. In some cases, this has led to a broadening of management responsibilities while in a few cases, it has led headteachers to take charge and make decisions for their staff. The change in leadership role appears to be directly related to judgements (from OFSTED and others) about the amount of difficulty the school is in. Schools that have the farthest to go to improve teaching and learning have no time to waste; headteachers are often given the task of making rapid and deep changes and teachers will then decide whether to "stay on or jump off." The Strategies are seen as useful tools in reorganising schools that are seen to be in serious difficulty. We found that some headteachers, in all types of schools, felt somewhat de-skilled in literacy and mathematics. All were doing what they could to give teachers release time for the increased planning and assessment required by the Strategies, but were limited in many cases by budgetary constraints.

In our interviews, school and LEA people strongly suggested that the development of local initiative would lead to greater sustainability of the Strategies, while without it the initiative would lose momentum and languish.

### CHANGES IN LEARNING IN LITERACY AND MATHEMATICS

Most respondents, in schools and in LEAs, believed that pupil learning has improved with the implementation of the Strategies and are prepared to provide evidence of improvement in various areas. However, while standards have risen, few believed that learning has improved to the extent suggested by the increase in Key Stage 2 test results. Teachers and headteachers suggest that improvements in school test scores, while representing some real increases in learning, also represent the results of other factors such as teaching to the test, cohort variability and the focus on a single measure of learning.

With a few exceptions, teachers and headteachers reported that children are more independent, more confident, better able to deal with a variety of mathematics problems and written texts and more knowledgeable about the technical vocabulary of English and mathematics.

## Comments on the View from the Schools

Our overall picture of NLS and NNS has been greatly enriched by the observations and insights of teachers and headteachers – the people who are actually making the Strategies work and whose efforts are responsible for increases in pupil attainment. In comparing the perspectives of those in schools and those at the centre, particularly DfES and Strategy leaders, we are aware of differences in

perception about various aspects of NLS and NNS. We see these differences as valuable sources of information about the implementation process. In some cases, problems raised by schools (such as perceived rigidity of NLS) are already being addressed by the Strategies but inevitably there is some delay before new information or resources actually reach teachers in schools. In other cases, messages as received and understood in schools may be quite different from the messages that were intended by the sender – awareness of the discrepancies is helpful to adjust policies or to improve communication.

The question of policy alignment and coherence is an area in which the view from the schools and the view from the centre differ considerably. Policymakers and Strategy leaders see a high degree of alignment, both with the Strategies and between the Strategies and other policies. Teachers and headteachers, on the other hand, tend to receive a constant stream of messages and directives. It is up to them to make sense of these, a difficult task at the best of times, and even more challenging when carried out in the midst of the daily operation of the school. It is not surprising that they see fragmentation where people closer to the centre see coherence. From the perspective of the school, initiatives seem never-ending and not always connected, contributing to the sense of overload and stress felt by many teachers and headteachers.

In our school visits, we saw and heard considerably less about some topics, particularly several potentially strong sources of support and professional learning, than we might have expected. For example, few in our schools mentioned leading mathematics teachers and expert literacy teachers, while even fewer reported using the NLS or NNS websites. This may be because we have as yet only spent a limited time in each of our sample schools and therefore have not yet had an opportunity to discuss all the relevant questions with teachers. On the other hand, it may be that many in schools have not yet taken advantage of such opportunities or that they have not found them to be as valuable as might be anticipated.

# Chapter 6: Successes, Challenges and Next Steps

## Introduction

The OISE/UT team has spent more than two years immersed in the NLS and NNS external evaluation – watching and learning. We continue to be impressed by the many positive features of this ambitious reform effort, one that combines a clear vision and central steering with resource allocation for training and capacity building in schools. At the same time, it is important to remember that deep and sustained reform depends on changes being deeply embedded in the system. The long-term value of the Strategies will depend much more on the everyday work of the thousands of regular teachers in the country's classrooms than on the handful of central strategists currently shaping the evolution of the Strategies.

Throughout the preceding chapters, we have reviewed evidence from a range of sources, examined primarily through the lens of our framework for viewing such large-scale reform. We have examined the view from the centre and the view from schools, showing how these perspectives are often quite different and, in the process, reveal some of the issues and dilemmas to be expected in such a complex national initiative.

In this chapter we are shifting more explicitly to the critical friend role. Acting as critical friends means going beyond the direct data we have gathered through site visits and surveys, reflecting on our own experience with reform in other jurisdictions and the international literature. As well, we are drawing on the wide range of conversations we have had with people who are involved with the Strategies, including academics and leaders in a variety of education organisations.

In our first annual report, we summarised the conclusions of our work to date in terms of successes and challenges. In this second report, we again summarise some key successes and challenges. However, another year into the implementation process, such characterisations seem insufficient for portraying the complexity of the issues and the dilemmas the government faces in deciding on approaches for the future. We are able to point to some notable successes of the Strategies, but we describe how, paradoxically, further challenges are often embedded in success. We recognise real accomplishments

but also suggest that while the gains to date have been impressive, there is still considerable ground to be covered if deep and lasting improvement is the criterion. Finally, in the spirit of critical friendship, we raise questions with respect to the next phase of reform.

## Successes

NLS and NNS were launched with considerable publicity and fanfare – the Strategies were hard to ignore. Although media attention has subsided somewhat and the Strategies no longer have the aura of the latest innovation, the momentum has not slackened but has continued throughout this past year. NLS and NNS are having an impressive degree of success, especially given the magnitude of the change envisaged.

### BREADTH OF INFLUENCE ON TEACHING AND LEARNING

The Strategies have had influence in virtually all schools, moving literacy and numeracy to top priority in classrooms across the country. Almost all schools have now received some training for both NLS and NNS and our data indicate that the majority of teachers are in agreement with the directions taken by the Strategies, particularly NNS. Pupil attainment, as evidenced by Key Stage 2 results, has increased and it seems likely that the 2002 targets will be met. In addition, both teachers and headteachers believe that the Strategies are influencing pupil learning. Two central features of the Strategies – the organisation of curriculum material around a clear set of learning objectives and the focus on teaching – may prove to be their most important contributions to school improvement in England.

In our classroom visits, we have found that most teachers are using the format and timing of the literacy hour and the three-part daily mathematics lesson, although, particularly in literacy, these are often modified. Observance of the Strategies and dedication of time to literacy and numeracy seems now well established in most schools. In classrooms we visited, we saw teachers using whole class teaching, being conscious of the pace of lessons and basing their planning on objectives rather than activities. These are likely to become common practices as lessons become increasingly fluid and teachers more confident. Some teachers that we observed were aware of the particular learning for each of their pupils, establishing curriculum targets for individual children while attending to the whole class. This kind of teaching is consistent with findings from recent research in the field of cognitive psychology that suggests that children's learning can be enhanced when teachers connect new learning to what children already know.

### ADAPTATION WITHIN A COHERENT VISION

One of the most striking features of the implementation of NLS and NNS is the way in which the Strategy leaders have modified elements of the Strategies (or messages about these elements) in response to information about progress and challenges, while maintaining coherence within the Strategies and with other policies. The overall vision, set out through the Frameworks, has remained constant, but specific priorities and emphases have shifted somewhat in response to data about pupil strengths and weaknesses and to feedback from schools and LEAs. At this stage, it is clear that the NLS and NNS communication webs extend widely and deeply into the education system, allowing Strategy leaders to anticipate problems and to design materials aimed at emerging needs. These modifications from the centre are not



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always immediately apparent to those in schools but such communication lags are common in large-scale reform initiatives.

## VALUE FOR MONEY

As we have noted, there are many unknown factors in estimating the value for money of the Strategies (or any other large-scale reform, for that matter). Our cautious conclusion to this point, however, is that a relatively small additional central expenditure (in the region of 5% of the overall cost of primary schooling) has levered significant shifts in the use of ongoing resources in schools, such as teacher time and attention. Test results are promising and we have seen and heard about many changes in practice that are consistent with the goals of the Strategies.

## INSTITUTIONALISATION OF A NATIONAL INFRASTRUCTURE

When the Strategies began, those leading the initiative had an image of a training system that would eventually take NLS and NNS into every classroom in the country. After two years, with support from LEAs, the objective has been achieved to a large extent. The National and Regional Directors provide leadership in development and training throughout the country, with the National Literacy and Numeracy Centre producing and distributing support materials. Although there have been personnel changes and modifications to the nature of the work, the national infrastructure is stable and has been able to adjust and evolve as circumstances require. NLS and NNS now reach into every LEA, every primary school and every teacher training institution with expertise available to support teachers whether they are newly qualified or veterans. Increasingly, the expertise is located at the local level, with consultants, leading maths teachers and expert literacy teachers providing the support that teachers need, when they need it.

## POLICY COHERENCE OVER TIME

An increasingly high degree of coherence and alignment is evident at the central or policy level. Although the only coherence that counts is not what is written in policy, nor what is articulated at the centre, but what is in the hearts and minds of educators throughout the system (Fullan, 2001b), the Strategies have made a good start. Now well into implementation and, to some extent, becoming an accepted and central component of primary schooling in England, NLS and NNS are adding to, as well as drawing on, the knowledge base concerning education reform.

The early momentum has continued as the Strategies have evolved, with a consistent vision that is now supported by more targeted objectives, messages developed in response to performance data and feedback from the field, ongoing development of new resources and a continuation of training opportunities for more and more teachers. The work has been extended, particularly through the provision of catch-up assistance to pupils who are falling behind, the launch of the Key Stage 3 initiatives so that gains are reinforced, the introduction of the early learning initiative and much stronger links to initial teacher training.

Developments such as increased policy consistency and coherence, continued emphasis on capacity building and attention to the broader context of schooling are likely to contribute to sustainability, although the question of whether and how changes are sustained cannot of course be answered for some years.

### BALANCING PRESSURE AND SUPPORT

In large-scale reform, particularly in the early stages, governments need to "think big, start big." They can push accountability, provide incentives (pressure and support), and foster capacity building. If they only do the first two, they can get results that are real but not particularly deep or lasting. To have a good chance of going the distance, they need to do all three (Fullan, 2001a).

NLS and NNS, as the leading edge of educational change under the current government, heralded the beginning of educational reform based on a knowledge base about change that incorporated pressure and support and capacity-building, in pursuit of higher achievement in literacy and numeracy. The pressure that has been a part of educational reform in England since the 1988 Reform Act has not lessened in this scenario. Accountability has remained intense and has been focused and concentrated through such initiatives as a revised National Curriculum, statements of standards, explicit expectations for achievement, monitoring of NLS and NNS in regular OFSTED inspections and National Assessments.

Support, however, is also an integral part of the Strategies, and much of this support focuses on building capacity at the school level. NLS and NNS have pupil learning as the goal and are committed to ensuring that teachers can deliver quality teaching in their classrooms. The commitment to support is evidenced by the range and extent of new materials, the creation of a national organisational network and the appointment of local consultants and expert teachers with the time and skill to model "best practices." Support is further shown by the professional development opportunities that have been put in place around the country and the alignment of the National Curriculum with NLS and NNS. This approach is in contrast to many other jurisdictions where critics are challenging the value of standards-based reforms as test-heavy and lacking in the supports that are required to do the job (Olson, 2001).

## Questions and Challenges

A number of questions have emerged from our consideration of the evidence available to the end of 2000. Although we are drawing attention to these issues in relation to NLS and NNS, it is important to note that there is still much to be learned about large-scale reform. Because the literature about reform is largely based on changes of more limited scope and smaller scale, the examples of NLS and NNS are particularly valuable as sources of new knowledge. We offer these questions as a beginning point for discussion about how to secure the long-term effectiveness of any large-scale reform, by applying them particularly to NLS and NNS.

- How deep are the changes in teaching that occur as a result of the reform?
- Are there unintended costs or consequences of the reform?
- How is the reform being organised to be sustainable in the long-term?
- What data are available about implementation, training needs and success in changing learning and how are such data being communicated and used?
- How are parents, families and the community engaged in understanding and supporting the reform?

## CHANGES IN TEACHING

Teacher capacity has no doubt increased through use of the structure and resources provided by NLS and NNS. We believe, however, that even more sophisticated teaching on the part of a larger proportion of the teaching force will be required to reach the kind of educational outcomes identified by cognitive scientists and others as necessary for functioning effectively in a complex society (Donovan, Bransford & Pellegrino, 1999). The literacy hour and the three-part daily mathematics lesson are ubiquitous (although not all components are always present). HMI reports that the quality of teaching is going up, and the results on the Key Stage 2 national assessments, the main criterion by which the Strategies are assessed, have increased steadily. The 2002 targets, originally seen by many as unrealistically high, now seem within reach. Evidence about the extent to which teaching has actually changed, however, beyond the adoption of the structure and format of the literacy hour and daily mathematics lesson, is mixed. If NLS and NNS are going to reap the kinds of returns that Strategy leaders believe are possible, the great majority of teachers will need to be very skilled and knowledgeable about teaching literacy and numeracy to their pupils. They will need to be able to work with children's pre-existing understandings, teach subjects in some depth and integrate the teaching of metacognitive skills into the curriculum (e.g., Donovan, Bransford, & Pellegrino, 1999). This is a tall order.

At this point, the HMI reports evaluating NLS and NNS (both published in 2000) state that the quality of teaching has improved over the time they have been observing the sample schools, although they indicate that areas of weakness remain in both literacy (especially writing) and mathematics teaching. The majority of headteachers in our survey report that classroom teaching has changed, especially in mathematics. For some teachers, however, such changes may be limited by their own lack of subject knowledge; NNS and NLS are addressing this lack through training and provision of curriculum materials. There is also evidence that understanding of the pedagogical principles behind the Strategies is not always strong. Fisher (2000), for instance, found that even after two years, some teachers had considerable difficulty with teaching to objectives in literacy, a fundamental component of both Strategies and one that, as we note above, has great potential for having an impact on pupil learning. Similarly, another study (Mroz, Smith, & Hardman, 2000) found "a notable absence of the higher order questioning and teacher-led discussion which is said [for instance, by Reynolds, 1998)] to characterise interactive whole class teaching." Headteachers in our site visits occasionally observed that teachers were often better at the technical aspects of implementing both Strategies than they were at accurately diagnosing and responding to individual differences in pupil understanding.

Such questions about pedagogy and the nature of changes in teaching are critical to ongoing evaluation of the Strategies – although the nature of our enquiry makes it impossible for us to collect data directly bearing on fundamental teaching practice, such information is essential. Valuable as the HMI evaluation reports are, they focus on the extent to which the Strategies have been implemented, with observations guided by the Strategy frameworks. They are not intended to get at teachers' pedagogical assumptions or at deeper changes in practice. Although a review and synthesis of best

practices informed decisions about content, the Strategies themselves are a unique blend of practices whose effects, to our knowledge, have never been carefully tested in real field settings. Although the National Literacy and Numeracy Projects did provide pilot testing, they were not designed for comparative evaluations of the impact of any of the elements and the Strategies have evolved far beyond the Projects.

The Strategies are in place; literacy and mathematics now have a high priority and teachers have been given the basic tools for teaching them. We believe, however, that a good part of the initial gains in achievement scores may be a function of changes in teaching practice that are effective and relatively easy to implement, although they may not get at the deeper understandings about teaching and learning. Such changes include: increased time on literacy and mathematics, teaching to objectives rather than approaching activities as ends in themselves, greater consistency in lessons and a focus on targets.

Our classroom visits have given us some insight into the kind of change in teaching that is possible when teachers have the capacity to provide expert teaching to pupils. These teachers can modify their approaches based on knowledge of how children learn in the areas of literacy and numeracy, careful observation and diagnosis of pupils' understanding of the material being taught and a repertoire of teaching methods. The challenge is to increase the numbers of teachers who are expert – teachers who are always learning about learning and who are able to use the Strategies as a foundation for making connections for each pupil.

It may be timely to begin some careful testing and fine-tuning of literacy and numeracy practices in field settings as an ongoing source of insight about how to improve attainment in literacy and numeracy. Such data need to be supplemented by independent research looking in more depth at the nature of teachers' beliefs, understanding and skill.* This kind of research should help to identify examples of especially powerful instructional strategies that can serve as models for others and extend the Strategies into even more powerful tools for improving learning.

## UNINTENDED COSTS AND CONSEQUENCES

### *Targets and Indicators*

Targets or standards and high-stakes testing are among the most contentious elements of large-scale reform. Most would agree that a move toward higher standards is necessary and important. There is less agreement, however, about the way that tests and targets are used in the process. Olson (2001) in the annual report of Education Week in the United States points out that although testing can be a powerful tool to change what happens in classroom and schools, these changes are not always positive. Of most concern are two practices – diverting time from teaching the curriculum to teaching pupils how to take the tests, especially in the months directly before the tests are given, and shifting time away from non-tested subjects towards tested subjects.

In phase one of the implementation of NLS and NNS (1997 to the present), focusing on Key Stage 2 tests and setting targets was likely beneficial. It got people's attention and enabled the system as a whole to mobilise.

* *The Leverhulme primary maths research project (based at King's College, London) may, for instance, provide data relevant to answering some of these questions in relation to teaching and learning of primary mathematics.*

While focusing on targets may represent a useful starting point for large-scale reform, it may not be the best approach for continued progress. The high visibility of the 2002 Key Stage 2 targets – the percentage of children who should reach Level 4 – has meant that, in effect, the Strategies are being judged, at least publicly, on their success in meeting this one criterion. NLS and NNS, however, are complex initiatives, based on frameworks that guide teaching over the primary years. They aim at transforming teaching in the primary school in a variety of ways; their success and impact cannot be fully assessed by a single measure. Strategy leaders, well aware of such limitations, draw on a range of indicators in assessing progress and identifying problems. Within the Key Stage 2 data, information is available about considerably more than the proportion of pupils attaining Level 4. Data about the full range of scores show that the entire distribution has shifted upwards, for instance, demonstrating that fewer pupils score at Levels 1 and 2 and more at Levels 4 and 5. Similarly, data about LEA results show that the gap between high-achieving and low-achieving LEAs has narrowed considerably. Beyond the Key Stage 2 assessments, available information includes HMI reports on classroom observations, ongoing monitoring by Regional Directors and feedback in training sessions and conferences.

Although there is considerable data available in addition to the proportion of pupils achieving Level 4 on the Key Stage 2 test, this measure remains the most visible *public* indicator. A preoccupation with single achievement scores can have negative side effects, such as narrowing the curriculum that is taught or wearing people out as they focus on the targets (Fullan, 2001b). The high political profile for the 2002 national targets could skew effort in the direction of activities that will lead to increases in the one highly publicised score. From the data available to us through site visits and a wide range of other conversations and interviews with those involved with schools, we see some evidence of this happening. We heard over and over in LEAs and schools that considerable time and energy are focused on test preparation. Teachers said that they faced a dilemma between trusting that using the Strategies alone would produce the required test scores and wanting to ensure that their pupils were prepared for the SATs, especially in Year 6. The emphasis on Level 4 performance as an entitlement for all children may inadvertently increase a tendency to "teach to the test" with borderline children. We also heard considerable scepticism, both within schools and from the wider educational community, about the motives for the Key Stage 2 intervention programmes directed at the "not quite Level 4" group, rather than those children who have little likelihood of reaching Level 4. Although there are educational reasons for this focus, a certain degree of mistrust remains that may disappear as the Strategies become embedded and schools recognise pedagogical advantages.

We recognise that DfES and the Strategies are constantly balancing short-term and long-term objectives. The government is caught in a dilemma – because electorates can be impatient, a long-term approach may only succeed if it delivers short-term results. In the case of the Strategies, rising test scores (short-term results) will do much to ensure support and funding for the essential capacity-building work over the longer term. At the same time, DfES and the Strategy leaders are aware that with a high political profile and a sense of urgency to show results, leaders must resist focusing on short-term gains at the expense





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of deeper reform, where gains are steady but not necessarily dramatic (Fullan, 2001b).

DfES might wish to evaluate, on an ongoing basis, the intended and unintended effects of the use of national targets and high stakes Key Stage 2 tests. This would include, for instance, a much more systematic examination than we can undertake of the extent to which teachers in Year 6 focus on test preparation and teaching to the test, and what this really means. It might also include, for a random group of schools, the use of somewhat different tests for reading, writing and mathematics, to see if the gains hold up or if they are restricted to a particular type of test.

*Other Curriculum Areas*

Another potential problem is what we call "collateral damage" – particularly the influence of NLS and NNS on other subjects in the curriculum (like art, music, drama, design technology and physical education) and other school experiences. DfES has done a great deal to facilitate the alignment of NLS and NNS with other subjects. Nonetheless, throughout the year 2000 we heard concerns from many headteachers about the Strategies squeezing out other crucial components of school programmes and experience (e.g., foundation subjects, whole-school activities and field trips). Some headteachers and teachers feel they end up cutting corners, a result that makes them uncomfortable about the extent to which they are providing what children need in their school lives. Such concerns may lessen during the next year as schools increase their capacity to manage these multiple demands.

*Manageability for LEAs and Schools*

Earlier in the report we highlighted the emergence of concerns about increasing pressure and initiative overload for teachers and headteachers. Such concerns, not unique to England, are gaining attention in many other countries, as ambitious large-scale reform inevitably has an impact, both positive and negative, on teachers and their work lives. Although teachers support the focus of the Literacy and Numeracy Strategies, our data confirm that they have added to teacher workload – particularly through time needed for planning, assessment and documentation. Teachers are still committed to their work but our data suggest that they often feel overwhelmed. The problem is not so much with the Strategies alone, but the fact that the implementation of NLS and NNS is taking place within a larger context of broader educational reform in England.

While feelings of overload and stress are common side effects of many large-scale approaches to school reform, some of which may be an inevitable part of the "implementation dip" associated with new learning, there is a tendency for reformers (as well as the general public) to minimise the problem. This is understandable because of the sense of urgency about the need for change. However, feelings of overload and stress can have negative consequences for the daily performance of teachers and their willingness to remain in the profession, as well as for the attractiveness of teaching as a profession (Blasé & Greenfield, 1985; Byrne, 1999; Dinham & Scott, 2000; Leithwood, Jantzi & Steinbach, 2000; Smylie, 1999). Such unintended consequences would not be helpful in the context of implementing the Strategies or other reforms.

Aside from the quite important consequences for the mental and physical welfare of individual teachers, those responsible for both the Strategies and the long term improvement of the nation's school system have a stake in

ameliorating excessive stress. This is doable. There is a considerable body of research (e.g., see Vandenberghe & Huberman, 1999, for an overview) that could help in the formulation of an attack on the problem. Such an initiative would be in the interests of all.

The overload problem is exacerbated by the total number of education reform initiatives, beyond NLS and NNS, emanating from the government. In their conversations with us, headteachers remarked on an almost ceaseless series of new or reworked initiatives and plans from above, making it difficult for schools to maintain their focus on key priorities such as literacy and numeracy. In most cases, the initiatives were seen as positive, but the sheer volume was overwhelming. The expected reduction in bureaucracy that had been promised is not yet noticeable to the headteachers with whom we spoke. What might help would be more time to plan for change, more time to discuss and work with colleagues. Although more planning time usually means taking teachers out of the classroom, some schools have been able to use regular part-time supply teachers to provide continuity for pupils. Schools that have been able to structure the week to allow such blocks of time for co-ordinators (and sometimes for teachers) are better able to create and sustain the kind of professionally supportive culture that fosters learning while providing ongoing support. Efforts made by the Strategy directorates to strengthen headteacher capacity for managing NLS and NNS should also help. These are the kinds of support that would benefit teachers and schools at this stage of the reform process. In effect we are suggesting that the problem be tackled both from the top, through policy means, and from the bottom, through strengthening the capacity of schools to deal effectively with external pressures and initiatives. Whatever the response, helping schools deal with overload, pressure and undue stress should be a higher priority than it is now.

## SUSTAINABILITY

The question of sustainability has emerged throughout our report – how to embed the reforms so that improvements continue when NLS and NNS are no longer the centre of the educational agenda. The main reason that change does not get sustained is that the infrastructure is weak, unhelpful or working at cross-purposes (Fullan, 2001a). The central infrastructure that has developed to date for NLS and NNS is strong and flexible. The issue now that reforms are in place is how the Strategy organisation should adapt to support reforms over time. We suggest two issues for attention – the balance between central direction and local (i.e., LEA and school) initiative and the nature of the larger "infrastructure" of the teaching profession.

### *Balancing Central Direction and Local Initiative*

Researchers have repeatedly drawn attention to the problems associated with sustaining or continuing any initiative after the initial push from policymakers for quite some time. As early as 1977, Berman and McLaughlin pointed to the necessity of interest and support for the initiative in the district (LEA) office, as well as money and expertise to provide ongoing professional development for both continuing and new teachers. In 1984, Huberman and Miles found that, when the local district mobilised to ensure that the reform became a key element in routine operations with the budget and personnel to keep it vibrant, the likelihood of changes being embedded in the local

structure increased. More recently, Datnow and Stringfield (2000) drew attention to the importance of the local infrastructure in maintaining reforms, while Fullan (2000a) concluded that negative school cultures, unstable districts and fluctuating policies all take their toll on the fragile foothold of reforms once the central driving force recedes.

The Literacy and Numeracy Strategies were centrally conceived and directed. Given the ambitious scope of the intended changes, there was no other way in which these reforms could be carried out. It was important to establish a clear focus and get the pressure and support in place to initiate the change. Our data suggest that schools have generally been inclined to acquiesce to, and approve of, such direction. Headteachers and teachers often expressed relief that they have been given the NLS and NNS frameworks and curriculum materials to better cope with the pressure (for example, of national tests, OFSTED inspections, imposed targets and high workloads).

Such compliance, of course, bodes well for implementing the Strategies now and in the near future. But, several years from now, will the government retain the energy and resources needed to continually update materials, improve on prescribed practices and train new teachers in whatever may be the approved best practices of the day? This seems an unlikely long-term direction, and one that might paradoxically result in a culture of dependence that could reduce the sense of professional autonomy, enterprise spirit and responsibility for continuously seeking ways of improving professional practice.

In our first annual report, we spoke of *the difference a stage makes*. We suggested that the kind of direction and support appropriate to the early stages of large-scale reform need to be modified at later stages, where the challenge is to maintain, deepen and broaden the gains made in the early stages. During our data gathering, in schools, LEAS, higher education institutions and elsewhere, we heard many questions about the long-term value and sustainability of NLS and NNS. In some cases, people perceived the Strategies as a one-size-fits-all approach to teaching imposed on a widely diverse range of schools, communities and pupil populations and wondered how NLS and NNS could best be adapted to fit particular local needs. In other cases, people were beginning to ask about what they should be doing (and not doing) to prepare for the long term, continuing to improve literacy and mathematics learning. Now that initial implementation has been achieved, it may be useful for DfES to clarify the vision for NLS and NNS in the intermediate future – to articulate and communicate what is expected over the next few years.

Government and Strategy initiatives during 2000 have led to greater policy coherence – something we identified as being important for initiating successful large-scale reform. Such coherence has resulted in clear messages and general acceptance of NLS and NNS. But, as the educational policy agenda is extended, it may be time for a shift in the balance of responsibility for the Strategies. DfES's success at putting the Strategies front and centre has, for the past few years, reduced the space for local initiative. There have already been some moves to give LEAs and schools more autonomy in how they utilise Standards Fund money. The question, it appears to us, is how best to move toward

conditions where LEAs, schools and teachers have the capacity to adapt, solve problems and continue to refine their practice, while remaining true to the sound pedagogical principles that underlie the Strategies? The next stage of the literacy/numeracy reform may well be to strengthen efforts already underway and encouraged by DfES and the Strategies to build professional community both within and across schools. For long-term sustainability, LEAs, schools and various professional organisations may need to take on and share the leadership role. Headteachers and others need to be deeply engaged in innovation, but after the first rush, the process must be less frenetic and more organically built into the culture.

As Gareth Morgan (1986) has pointed out (metaphorically), all organisations have "brains." In inflexible and hierarchical organisations, the brains are located at the top, thinking on behalf of those in the trenches. But the brain of an agile, flexible and responsive organisation is distributed broadly amongst its members, all of whom have a commitment to achieving the organisation's goals the best way they know how. We believe that more could be done to ensure that the distributed brains (in LEAs and schools) have the scope and autonomy they need to do their best, bearing in mind the need to ensure that they build the capacity to do it well.

We are *not* suggesting that the government bow out of its central role with the Strategies. This is not an either-or situation; both central direction and local initiative are necessary. The challenge is to find a dynamic balance, recognising that LEAs, schools and even particular headteachers and teachers are at different points and have different needs. The situation is analogous to that of teachers who are constantly paying attention to pupils, monitoring their learning and their misconceptions, adjusting and adapting their resources or teaching to the differing needs of children, giving assistance to some, independence to others. DfES has the challenge of constantly monitoring and addressing the differences that exist in LEAS and schools, while moving them all toward greater ownership, commitment and expertise.

Our conclusion at this stage is that the Strategies have indeed caught the interest and energy of the majority of LEA managers, headteachers and teachers. There is a growing sense of pride and accomplishment from the results so far. Yet the source of the commitment of many teachers and headteachers often seems to be their gratitude at having been given effective tools for dealing with the target setting and the national assessments – in other words that they now have more support to deal with the pressure. DfES and the Strategies need to build on the foundation that has been established through the effective use of pressure and support. The challenge now is to go beyond, to develop internal commitment and local capacity for implementation and management of the Strategies as they continue to grow, evolve and respond to the needs of schools. The most effective LEAs and schools develop the ability to stay in touch with core values and goals and to take charge of change, rather than being controlled by it (Stoll, Fink and Earl, in press). This shift is necessary to sustain the energy – people continue because getting the job done is intrinsically rewarding. We have seen such examples in our schools but there is still a long way to go.

*The Teaching Profession*

Ultimately, any changes that occur in schools happen because of the motivation and capacity of individual teachers teaching children in classrooms. It is important for educational systems to attract, grow and nurture eager, energetic, knowledgeable and skilful teachers.

We have already mentioned, in Chapter 2 and elsewhere, growing concerns about current and future difficulties in attracting and retaining teachers, particularly in and around London. We have also mentioned the government's work in modernising the teaching profession. There is a new professionalism for teaching in today's world; being a teacher today includes much more than teaching and related responsibilities. Effective teachers are part of a larger learning community taking collective responsibility for all pupils, reaching out to parents and the community and with responsibility for their own continuing professional development. We believe it is crucial to continue to develop and strengthen the generic infrastructure that affects the quality of the teaching profession. By generic infrastructure, we mean policies related to the basic quality of the profession as distinct from specific infrastructure that (in this case) pertains to literacy and numeracy. Such policies will address initial teacher education, induction, teacher compensation and performance appraisal, as well as leadership development and support, all areas that DfES is currently examining. The challenge is to develop policy to strengthen the teaching profession as a profession – in the eyes of those who enter and stay in teaching and in the eyes of the public..

## AVAILABILITY AND USE OF DATA

Data and evidence are increasingly important dimensions for educational decision-making. However, pervasive misunderstandings about research and statistics are common. Although evidence is valued to inform decisions, most people are not sufficiently "data literate" to interpret and use it appropriately (Earl, 1995).

As a result of the policy directions in the last 15 years, England is data-rich. DfES, OFSTED, QCA and other agencies produce and distribute many reports for schools, LEAs and the country as a whole. Data can give local leaders insight into their own communities and inform their planning. LEAs and schools already collect data of various kinds to support their Educational Development Plans, applying data from surveys, observations and monitoring to daily planning of programs and teaching, as well as to LEA plans for resource allocation.

England is well positioned to offer a model of the use of data for wise educational decisions and we endorse the promotion of evidence-informed policy and practices by the government (Levačić & Glatter, 2001). The combination of researchers with expertise and well-developed data banks provide a foundation for evidence-based planning. The reports that are produced by various government agencies already provide schools and LEAs with the analyses of data needed for reasoned decisions. NLS and NNS have specifically begun emphasising ways in which headteachers and teachers can collect data that has meaning for them and the decisions that they are making (e.g., curriculum targets, monitoring lessons). Taken together, these multiple sources and uses of data have the potential to steer decisions and suggest appropriate adaptations or alterations.



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We were struck, however, by the variability in people's knowledge of what the data mean and how such information might contribute to decisions. In some LEAs and schools, data were viewed as important tools to focus discussion and challenge opinions. Our concern, at this stage, is that data, in the hands of naive users, can be misleading and result in poor decisions. It may be time to concentrate additional efforts on training programs or services to assist local advisers, headteachers and teachers in collecting, interpreting and using data. This may be particularly appropriate for teachers. There is considerable evidence that standards are raised when teachers use formative assessment to collect data about pupils' progress as part of their routine classroom practice (Black and Wiliam, 1998). Although this kind of assessment for learning is already happening in many primary classrooms, the benefits from strengthening formative assessment as an integral part of the Strategies would be substantial. The professional training program could be expanded to include explicit attention to formative assessment and feedback methods that are consistent with the aims of the Strategies and to provide teachers with resources and examples to guide their practice.

## PARENTS, FAMILIES AND THE PUBLIC

The government is well aware of the impact of parents on children's learning and the importance of involving parents in any reform efforts. From the beginning of the Strategies, parallel public engagement programmes were launched – the National Year of Reading and Maths Year 2000 – with a variety of ways of encouraging parents to capitalise on everyday opportunities to strengthen their children's literacy and numeracy skills. For instance, attractive small publications for parents suggest activities to do with children. DfES and the Basic Skills Agency also fund family literacy and numeracy programmes in many schools, to help parents whose own levels of expertise are not high. In spite of these efforts, however, the potential contribution that parents can make to children's learning has not yet been realised. The national campaign seems to have proceeded somewhat outside the school arena. Indications from our survey data and from school interviews suggest that increasing parent engagement is not the first priority for schools; a situation that makes sense given the more urgent and immediate focus on improving teaching and other school inputs.

At the same time, our site visits revealed that these schools are working hard to inform and engage parents, but are meeting with varied levels of success. Schools in highly disadvantaged communities report particular difficulties, perhaps related to parents' own ambivalence about school and a lack of conviction that education will necessarily improve children's lives. Nonetheless, most of our sample schools reported progress, either in increasing attendance at sessions to let parents know about the Strategies and how to help their children, or in daily routines such as having parents write comments on children's work.

At this point, we see that the literacy/numeracy focus is appropriately placed on what schools can do to improve pupil learning. Once the Strategies are well-embedded at the school level, with teachers both confident and competent in their use, the next phase of the Literacy and Numeracy Strategies could involve allocating a greater share of the resources to building on the work with parents and families. This would mean allocating more resources to strengthen

parents' contributions to children's literacy and numeracy, with a particular focus on pupils and schools where the need is greatest. How both families and schools influence pupil learning could become an important emphasis in capacity building initiatives. The challenge is to learn from the successes with programmes such as family literacy and numeracy, but to "go to scale" with such initiatives. According to headteachers, the excellent materials that DfES has already produced would not, on their own, be useful with parents whose own levels of confidence and competence are problematic.

As a caution, research shows that the only kind of parent involvement that is likely to make a difference to pupil attainment is parents' engagement with their own children's learning. In other words, parent involvement in governance, on its own, will not have this effect.

## Conclusion

It appears to us that the National Strategies for Literacy and Numeracy have made significant changes in primary education throughout England in a remarkably short period of time, although it is difficult to establish a definite "start date." The change is pervasive and has moved literacy and numeracy to the top of the agenda. As we noted earlier, the changes, although real, are not yet deep-seated enough to continue without consistent pressure and support, which we believe will be necessary for the foreseeable future. As the Strategies proceed to the next stage, we do recommend that the government continue to build on existing strengths. At the same time, we suggest that national leaders re-engage in the kind of broader enquiry that led to the Strategies in the first place. In particular, we think it would be valuable for the system to engage in an investigation of the kinds of teachers and learners needed for the knowledge society, and then juxtapose these images against the kinds of teachers and learners being produced by implementation of the Literacy and Numeracy Strategies. The investigation would include both the intended and unintended outcomes in terms of teaching and learning.

The issues we have raised should not be construed as criticisms of the NLS and NNS initiative – it *is* successful, and that's why these challenges have emerged. These issues are critically important because England is in a period of massive renewal of the teaching profession. Unlike many large-scale reform initiatives, the Strategies have had substantial early success. The next phase of NLS and NNS reform is crucial because it involves first, deepening the teaching practices in classrooms and schools, second, ensuring that other areas of the curriculum are progressing apace and, third, attending to what we called the generic aspects of the broader structure of the profession. Much has been accomplished and this should be celebrated. At the same time, a careful look at the progress of the Strategies reveals how much more needs to be done to address the reform agenda more comprehensively.

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